National Library of Canada

Acquisitions and Bibliographic Services Branch

395 Wellington Street
Ottawa, Ontario
K1A 0N4

Bibliothèque nationale du Canada

Direction des acquisitions et des services bibliographiques

395, rue Wellington
Ottawa (Ontario)
K1A 0N4

Your file Votre référence

Our file Notre référence

NOTICE

The quality of this microform is heavily dependent upon the quality of the original thesis submitted for microfilming. Every effort has been made to ensure the highest quality of reproduction possible.

If pages are missing, contact the university which granted the degree.

Some pages may have indistinct print especially if the original pages were typed with a poor typewriter ribbon or if the university sent us an inferior photocopy.

Reproduction in full or in part of this microform is governed by the Canadian Copyright Act, R.S.C. 1970, c. C-30, and subsequent amendments.

AVIS

La qualité de cette microforme dépend grandement de la qualité de la thèse soumise au microfilmage. Nous avons tout fait pour assurer une qualité supérieure de reproduction.

S'il manque des pages, veuillez communiquer avec l'université qui a conféré le grade.

La qualité d'impression de certaines pages peut laisser à désirer, surtout si les pages originales ont été dactylographiées à l'aide d'un ruban usé ou si l'université nous a fait parvenir une photocopie de qualité inférieure.

La reproduction, même partielle, de cette microforme est soumise à la Loi canadienne sur le droit d'auteur, SRC 1970, c. C-30, et ses amendements subséquents.

Canada

UNIVERSITY OF ALBERTA

PARENTING IRRATIONAL BELIEFS AND MARITAL ADJUSTMENT AS CORRELATES OF PARENTING STRESS IN YOUNG FAMILIES

BY

CONNIE ELLEN McDONALD

A thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements of the degree of DOCTOR OF PHILOSOPHY

IN

COUNSELLING PSYCHOLOGY

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

EDMONTON, ALBERTA

FALL 1993

National Library
of Canada

Acquisitions and
Bibliographic Services Branch

395 Wellington Street
Ottawa, Ontario
K1A 0N4

Bibliothèque nationale
du Canada

Direction des acquisitions et
des services bibliographiques

395, rue Wellington
Ottawa (Ontario)
K1A 0N4

Your file Votre référence

Our file Notre référence

The author has granted an irrevocable non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of his/her thesis by any means and in any form or format, making this thesis available to interested persons.

L'auteur a accordé une licence irrévocable et non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de sa thèse de quelque manière et sous quelque forme que ce soit pour mettre des exemplaires de cette thèse à la disposition des personnes intéressées.

The author retains ownership of the copyright in his/her thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without his/her permission.

L'auteur conserve la propriété du droit d'auteur qui protège sa thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

ISBN 0-315-88157-7

Canada

UNIVERSITY OF ALBERTA

RELEASE FORM

NAME OF AUTHOR: Connie Ellen McDonald

TITLE OF THESIS: Parenting Irrational Beliefs and Marital Adjustment as Correlates of Parenting Stress In Young Families

DEGREE: Doctor of Philosophy

YEAR THIS DEGREE GRANTED: 1993

Permission is hereby granted to the University of Alberta Library to reproduce single copies of this thesis and to lend or sell such copies for private, scholarly or scientific research purposes only.

The author reserves all other publication and other rights in association with the copyright in the thesis, and except as hereinbefore provided neither the thesis nor any substantial portion thereof may be printed or otherwise reproduced in any material form whatever without the author's prior written permission.

Connie McDonald

47 Strathaven Circle S.W.
Calgary, Alberta
T3H 2E9

May 21, 1993

UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled PARENTING IRRATIONAL BELIEFS AND MARITAL ADJUSTMENT AS CORRELATES OF PARENTING STRESS IN YOUNG FAMILIES submitted by CONNIE ELLEN McDONALD in partial fulfillment of the requirements for the degree of DOCTOR OF PHILOSOPHY in COUNSELLING PSYCHOLOGY.

P. Calder, Ph.D.

G.M. Kysela, Ph.D.

L. McDonald, Ph.D.

W.J. Hague, Ph.D.

J. Blakey, Ph.D.

T. Froehle, Ph.D.

March 8, 1993

Dedication

To Richard, Deagan, and Madison

Abstract

Relationships among levels of parental stress, irrational beliefs about parenting, and marital adjustment as reported by mothers and fathers of children under the age of three were investigated in this study. Data was collected from 62 couples by the administration of a questionnaire that was distributed through daycares and nursery schools. The questionnaires included: the Parenting Stress Index (PSI; Abidin, 1986), as a measure of the level of stress in the parent-child relationship, the Parent Irrational Belief Scale (PIBS; Ackerman, 1991), as a measure of irrational beliefs about parenting, and the Dyadic Adjustment Scale (DAS; Spanier, 1976), as a measure of marital adjustment. Demographic data collected included the health status of the child, age of the child and the parents, number of siblings, length of time the parents were married, income level, work status, and level of education.

No significant difference was found between mothers and fathers for overall levels of parenting stress, parent irrational beliefs, and marital adjustment. As predicted by previous research, mothers reported significantly higher levels of parenting stress than fathers for the Parent Domain of the Parenting Stress Index. For mothers and fathers, parenting stress was significantly correlated with both irrational beliefs about parenting and marital adjustment. Step-wise regression equations showed that for both mothers and fathers, marital adjustment was the strongest predictor of parenting stress.

Acknowledgements

I would like to extend my thanks to my advisor, Peter Calder, who gave generously of his time and expertise. His support, as I dealt with the stresses of becoming a parent while completing a dissertation, was appreciated many times along the way. Thank- you also to my committee members, Gerry Kysela, Bill Hague, Linda McDonald, and Janis Blakey, whose thoughtful and challenging questions will remain with me long after the completion of my Ph.D.

Special thanks to my schoolmates, Deb McDougall, Jerry Rose, Peter Lyons, and Penny Ford. You helped me remember that a thesis is worth a thousand laughs. Thank-you also to my playgroup, Donna, Diane, Sandy, and Angela. Your friendship will always be remembered.

To my family, for not saying "I told you so" when things went wrong, and for saying "I told you so" when things went right. Special thank-you to my husband Richard for your help and your patience, and most of all, thank-you for your love.

Table Of Contents

CHAPTER I INTRODUCTION 1

Definition of Terms 3

Limitations of the Study 4

CHAPTER II REVIEW OF LITERATURE 5

Parenting Stress 5

Irrational Beliefs 15

Measuring Irrational Beliefs 16

Irrational Beliefs and Emotional Distress 17

Marital Adjustment 18

Spousal Support and Marital Adjustment as Mediators of Parenting Stress. 20

Summary 23

CHAPTER III METHODOLOGY 25

Introduction 25

Sample 25

Procedure 26

Measuring Instruments 26

Parenting Stress Index (PSI) 26

Parent Irrational Belief Scale (PIBS). 27

Dyadic Adjustment Scale (DAS) 28

Research Questions and Statistical Analysis 29

Data Analysis 30

CHAPTER IV RESULTS 31

Introduction 31

Description of the Sample 31

Summary Statistics on the PSI, PIBS, and DAS 36

Analysis of the Parenting Stress Index (PSI) 36

Analysis of the Parent Irrational Belief Scale (PIBS) 43

Analysis of the Dyadic Adjustment Scale (DAS) 44

Differences Between Mothers and Fathers 46
Analysis of Variance (Anova) 46
Correlational Data 48
Regression Equations 57
Summary of Results 60
CHAPTER V DISCUSSION 62
Summary of Methodology and Sample 62
Summary and Discussion of the Results of the PSI, PIBS, and DAS 62
CHAPTER VI SUMMARY, CONCLUSIONS, AND IMPLICATIONS FOR FUTURE RESEARCH 78
Summary and Conclusions 78
Delimitations of the Study and Implications for Future Research 80
BIBLIOGRAPHY 82
APPENDIX A 87
APPENDIX B 89

List Of Tables

TABLE IV-1 Demographic Data 33

TABLE IV-2 Demographic Data Mothers and Fathers Combined 34

TABLE IV-3 Range, Mean, Standard Deviation, Percentiles and Level of Statistical Significance (p) of Scores Between Mothers and Fathers on the Parenting Stress Index (PSI), PSI subscales, Parent Irrational Belief Scale (PIBS), Dyadic Adjustment Scale (DAS), and DAS subscales 37

TABLE IV-4 Comparison of Means, Standard Deviations, and Z-Tests Between the Sample and Available Normative Data For The Parenting Stress Index (PSI), Parent Irrational Belief Scale (PIBS), and The Dyadic Adjustment Scale (DAS) 38

TABLE IV-5 Pearson-Product Moment Correlations Between the Parenting Stress Index (PSI), Dyadic Adjustment Scale (DAS), and Various Demographic Data for Mothers and Fathers 49

TABLE IV-6 Pearson-Product Moment Correlations Between Mothers' and Fathers' Scores on the Parenting Stress Index (PSI), Parent Irrational Belief Scale (PIBS), and the Dyadic Adjustment Scale (DAS) 50

TABLE IV-7 Correlations Between the Parenting Stress Index (PSI), Parent Irrational Belief Scale (PIBS), and the Dyadic Adjustment Scale (DAS) For Mothers and Fathers 52

List Of Figures

FIGURE 1 6
FIGURE 2 7
FIGURE 3 57

Chapter I Introduction

Parenthood, whether first time or subsequent, brings change and new challenges to an existing family system. Although initially reported by researchers to be a time of crisis (LeMasters, 1957), parenting was later seen as an adjustment requiring only mild to moderate coping skills (Hobbs & Cole, 1976).

Understanding the stresses associated with parenting young children is of interest from both a clinical and developmental viewpoint. Abidin (1986), notes that "stress in the parenting system during the first three years of life is especially critical in relation to the child's emotional/behavioral development and to the developing parent/child relationship" (p. 1). High levels of parenting stress have been linked to higher levels of traumatic injuries in two to four year old children (Abidin, 1982) and child abuse (Bauer & Twentyman, 1985).

Much research has been conducted on both parenting stress (e.g. Abidin, 1986; Belsky, 1984) and marital adjustment to first-time parenthood (Belsky & Rovine, 1990; Hobbs & Cole, 1976). Researchers have investigated many correlates of parenting stress, including several studies linking the constructs of parenting stress and irrational beliefs about parenting (Ackerman, 1991; Langford, 1988; Starko, 1991). The level of marital adjustment between the parents has also been established as an important factor in the levels of parenting stress reported by couples (Mouton & Tuma, 1988; Russell, 1974; Webster-Stratton, 1989; Younger, 1984).

Lazarus and Folkman (1984) postulate that the critical variable in the amount of stress experienced by a person is the cognitive appraisal of an event and not the event itself. The appraisal or assessment of an event is affected by many variables, one of which is likely a tendency toward irrational beliefs.

Irrational beliefs or ideations, according to Ellis (1962), are unrealistic cognitions or beliefs that exert a negative influence on our thoughts, feelings, and behaviors by way of creating rigid, perfectionistic, and irrational "rules" we believe we must follow to be successful. The result is often a poor level of mental health characterized by

anger, depression, and anxiety. Studies have linked irrational beliefs to generalized stress (Deffenbacher, Zwemer, Whisman, Hill, & Sloan, 1986; Smith, Houston, & Zurawski, 1984). Ackerman (1991) and Langford (1988) found a positive correlation between parenting stress and irrational beliefs about parenting for mothers of young children. Starko (1991) also found a positive correlation between these two variables for a small sample of fathers.

A variable that may affect the stress level experienced by parents of young children is the parents' level of marital adjustment. LeMasters (1957) initially viewed adjustment to first-time parenthood as a crisis. Subsequent researchers reported that while a few marriages do suffer, many couples experience only a minimal or moderate adjustment problem (Hobbs & Cole, 1976). Many couples report a positive change in their marriage as a result of moving from a dyad to a triad (Wright, Henggeler, & Craig, 1986). There are many reasons for the proposed decline in marital satisfaction following the birth of a child: less time to spend alone with your spouse (LaRossa, 1983), lack of spousal support with household tasks and child- care (Cowan & Cowan, 1988), and an increased stress level created by the demands of a child, which may leave little energy to invest in the marital relationship (LaRossa, 1983).

Most of the research in the area of marital adjustment and first-time parenthood looks at marital adjustment as an outcome or dependent variable. If marital adjustment is perceived as a form of spousal support, then the reverse relationship may also hold true; lower levels of marital adjustment may contribute to, or be predictive of, higher levels of parental stress. Results of research on the stress of parenting handicapped children show that the most significant variable associated with reduced parental stress was the mother feeling satisfied with the marital relationship (Friedrich, 1979).

The identification of variables that may relate to higher parenting stress levels may be important in the development of educational programs in pre- and post-natal settings, and in clinical counselling situations. Parent effectiveness training, cognitive counselling, and marital or family counselling may all help to reduce the stresses

associated with parenting and therefore improve the quality of the parent/child relationship.

Much of the research to date has focused on the assessment of maternal stress, with little data available on the levels and correlates of paternal stress or on a comparison between maternal and paternal stress. There are no studies available that compare irrational beliefs, marital satisfaction, and level of parenting stress in mothers and fathers. Research shows that mothers generally experience higher levels of parenting stress than fathers (Abidin, 1986), and that the level of involvement with the child(ren) does not seem to be a factor in either creating or reducing the level of parenting stress experienced (Cowan & Cowan, 1988).

The purpose of this research was to gain a better understanding of the relationship among parental stress, parenting irrational beliefs, and marital adjustment, and to compare these variables between mothers and fathers. Following this introduction is Chapter II, which contains a review of the related literature on parenting stress, marital adjustment to parenting, and irrational beliefs. In Chapter III, the methodology for data collection and a description of the sample is provided. The results of the study are outlined in Chapter IV, with a discussion of the results following in Chapter V. In Chapter VI, the summary, conclusions, and implications for future research are provided.

Definition of Terms

Parenting Stress. Parenting stress is stress reported by the mothers and fathers in the study and measured by the Parenting Stress Index (Abidin, 1986). Abidin (1986) provides three measures of parenting stress: child characteristics (Child Domain), parent characteristics (Parent Domain), and situational life stress, as well as a total parenting stress score.

Irrational Beliefs. Irrational beliefs as measured by the Parent Irrational Belief Scale (Ackerman, 1991) are consistent with Ellis' 1962 theory of irrational ideation.

According to Ellis, irrational beliefs are unrealistic, empirically invalidated beliefs that usually take the form of rigid, absolutistic shoulds, oughts, musts, and demands.

Marital Adjustment. Marital or dyadic adjustment is the level of marital satisfaction, cohesion, consensus, and expression of affection, as measured by the Dyadic Adjustment Scale (Spanier, 1976).

Limitations of the Study

Participation in the study was voluntary and it is possible that the parents who chose to respond to the questionnaire were not representative of the population from which they were drawn. Generalizability of the findings must be made in light of the response rate and the volunteer nature of the subjects. It was possible that the parents who chose not to respond to the survey were more stressed, more irrational, and had a lower level of marital satisfaction than those parents who did respond.

Couples who received a copy of the questionnaire were requested to complete the questionnaire independently so as to avoid influencing the responses of their spouse. If couples did not comply with this request the results might not have been accurate.

In this study only parents of a healthy child under the age of three were studied, therefore the findings of this research should not be generalized to parents of older children, or to parents of ill or handicapped children. As well, all of the couples in this study were married and generalizations to common-law and single parent families should be made with caution.

Chapter II Review of Literature

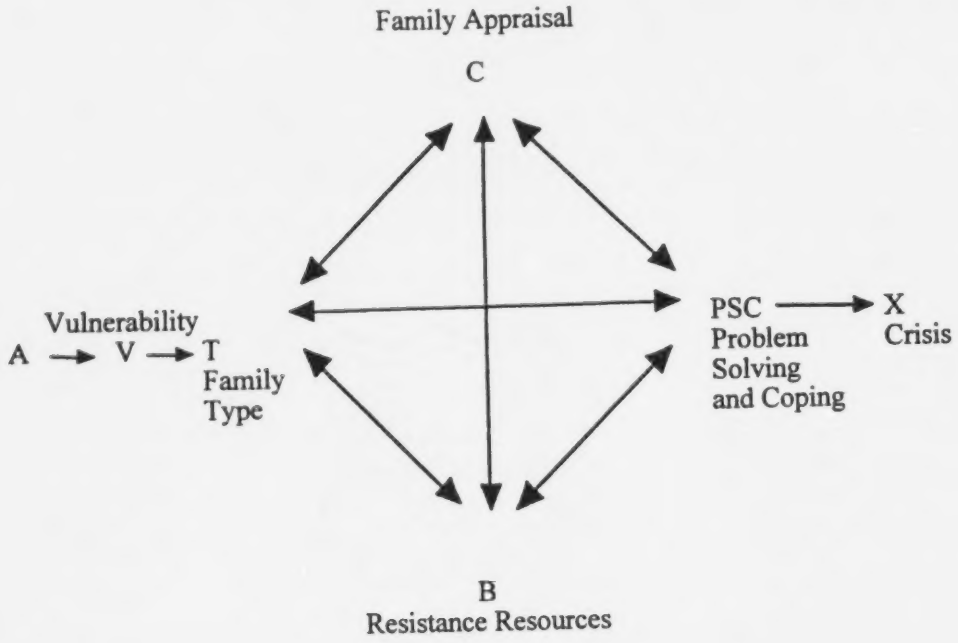
In the following review of literature, several constructs proposed to be related to parenting stress are presented. Parenting stress is discussed first, and includes a review of the pertinent theoretical orientations and studies conducted to date. A review of the general area of irrational beliefs as developed by Ellis (1962) follows. Next is a review of the literature focusing on marital adjustment. Studies in this area are divided into two groups, marital adjustment to parenthood and marital adjustment as a form of social support in coping with parenting stress.

Research on parenting stress has been approached from one of several perspectives. Early investigations focused on family stress and were primarily motivated by Hill's (1949) classic work. Hill's original ABCX model has continued to undergo development and is widely used today in research on the stresses of parenting a handicapped child (McCubbin & Thompson, 1987). Shortly after Hill's (1949) work came the seminal research of LeMasters (1957) that shifted focus to the stresses associated with marital adjustment to first-time parenthood. Much research is still being conducted in this area to date (Belsky et al., 1983, 1985, 1989; Cowan & Cowan, 1988). More recently, Abidin's (1986) development of the Parenting Stress Index has encouraged interest in studying the stresses of parenthood from the perspective of the parent-child relationship.

Parenting Stress

There are several models in the area of parenting stress that are useful in conceptualizing the problem. Perhaps the best known is the T Double ABCX model of family adaptation developed by McCubbin and Thompson (1987) based upon Hill's (1949) ABCX model. The model is two-stage with Stage 1 being family adaptation to somewhat minor changes, transitions, or demands, and Stage 2 being the adjustment to major crises requiring family reorganization of boundaries, rules, or patterns of behavior (See Figure 1).

Figure 1
Outline of Stage 1 of the T-Double ABCX Model



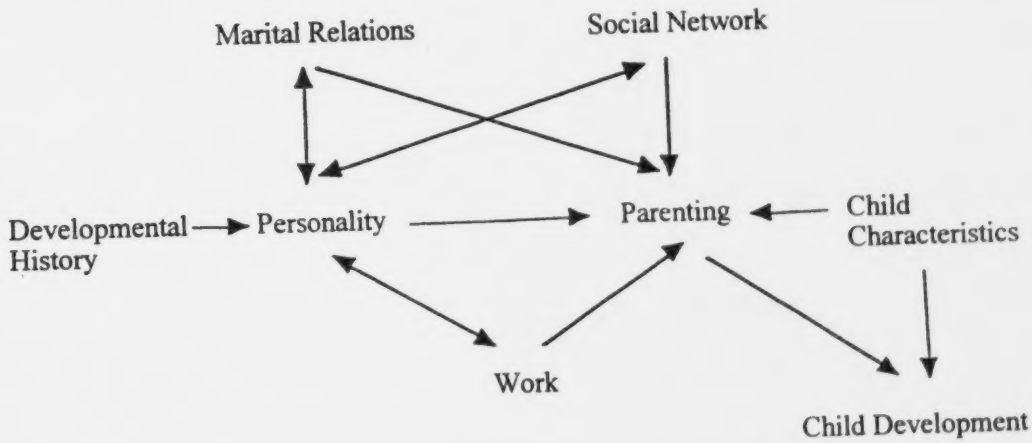
Adapted from McCubbin and Thompson (1987) by Reddon (1989)

The dimensions of Stage 1 of the model are: (A), the stressor event, (V) the family's vulnerability because of other stressors, called "pile-up", (T), the family's typology, (B), the family's resistance resources, (C), the family's appraisal of the stressor event, and (PSC), the family's problem solving and coping capacity. Each of these variables interact to determine (X), the family's adjustment to the stressor event. Stage 2, adaptation, is very similar to Stage 1, and follows if a family cannot adjust to a stressor event adequately.

Another model proposed in the area of parenting stress is Belsky's (1984) process model (Figure 2). Belsky (1984) states that parenting is influenced by forces emerging from within the individual parent (personality), within the individual child (child characteristics of individuality), and from the broader social context in which the

parent-child relationship is embedded - specifically marital relations, social networks, and the occupational experiences of the parents. The model presumes that parental functioning is determined by more than one variable, that sources of contextual stress and support directly affect parenting or indirectly affect parenting by first influencing individual psychological well-being, and that personality influences contextual support/stress, which feeds back to shape parenting. In order of importance, the personal psychological resources of the parent are more effective in buffering the parent-child relationship from stress than are contextual sources of support, which are themselves more effective than the characteristics of the child (Belsky, 1984).

Figure 2
A Process Model of the Determinants of Parenting



Adapted from Belsky (1984)

In both of the models presented, the cognitive appraisal of the stressor, and the level of spousal support in dealing with the stresses of parenting, are important variables. The following section of the review of literature will be a discussion of the variables associated with parenting stress.

Although LeMasters' (1957) study spurred the development of research on marital adjustment to parenthood, the study actually focused more on the general stresses associated with parenting. Eighty-three percent of the couples interviewed by LeMasters (1957) reported an "extensive" or "severe" crisis in adjusting to their first child even though over 90 percent of the pregnancies were planned or desired and 89 percent of the couples rated their marriages as "good" or "better". The mothers reported the following in adjusting to their first child: loss of sleep, chronic fatigue, extensive confinement to the home and the resulting decrease in social contact, guilt at not being a "better" mother, and unpreparedness for the long hours and seven day (and night) work week necessary to care for a child. The fathers had similar concerns but added several: decline in sexual responsiveness of wife, increase in economic pressures and an interference with social life.

LeMasters (1957) postulated that the high levels of stress experienced by the parents were due to two factors. First, the couples in the crisis group appeared to have "almost completely romanticized parenthood" (LeMasters, 1957, p.353). Although LeMasters' (1957) study was conducted before the development of Ellis' (1962) theory of irrational beliefs, LeMasters' ideas would appear to fit well into Ellis' theory. The 'romantic' notions of the parents in LeMasters' study could be conceptualized as irrational or unrealistic beliefs or expectations of parenting.

LeMasters (1957) notes that the arrival of the first child forces married couples to take the last painful step into the adult world. This creates not only a reorganization of the family structure from a dyad to a triad, but also requires an internal reorganization as full adulthood status is achieved.

In a qualitative study Ventura (1987) interviewed 58 mothers and 54 fathers at the 3rd to 5th postpartum months. Four categories of stress emerged: demands of multiple roles (parent, spouse, worker), infant care, interactions with spouse, and interactions with other family members and friends. More mothers experienced stress than fathers for infant care (35% vs. 20%), interactions with spouse (14% vs. 11%), and interactions with family members and friends (18% vs. 5%). In contrast, 64 percent of fathers

compared to 35 percent of mothers (working full-time) described stresses associated with multiple role demands. Although these themes are similar to those described by LeMasters (1957), the level of stress experienced by the parents in this study is much lower than the levels reported by LeMasters.

Alpert, Richardson, and Fodaski (1983) developed a list of stressful events associated with the onset of parenting and then had different groups of mothers and fathers (working vs. stay at home mothers) rank order the events. Results are similar to Ventura (1987) in that, frequent conflictual demands for time by spouse and child and major illness of the child were highly stressful events for parents. The results were in relative agreement between the different groups although the event "frequent conflictual demands between need for self and child," was experienced as more stressful for stay at home mothers than working mothers.

A common theme in studies of parenting stress seems to be the lack of time once a baby is born. New mothers and fathers reported that sleep time, television time, sex time, and even bathroom time are all scarce (LaRossa, 1983). Having less time for self was also reported to be the most negative area of life change overall for both husbands and wives, with wives experiencing more change than husbands (Harriman, 1983). While caring for a child does add an undeniable load of tasks to be accomplished daily, LaRossa (1983) argues that some time pressures experienced by mothers occur because of a 'singular overcommitment to motherhood'. The mother may become consumed by the baby and the house with little time or energy left to invest in either herself or the marital relationship. Perhaps this overcommitment that LaRossa (1983) discusses is related to irrational beliefs about parenting. It could be hypothesized that some women (and men) have irrational beliefs about their relationship with their child. For these parents, placing their child's needs well above those needs of self and spouse could lead to increased levels of personal, parental, and marital stress. Cowan and Cowan (1988) found this to be true in their study. The results showed that "women who managed to limit some of their psychological involvement in the parent role and to

maintain their investment in the spousal role, experience less parenting stress and greater satisfaction with their marriage" (p. 126).

Weinberg and Richardson (1981) studied the dimensions of stress in early parenting using Lazarus and Folkman's (1984) definition of stress. This definition emphasizes the individual's cognitive appraisal of an event, rather than the event, as the critical factor in the level of stress experienced. Results show that spouses do not share common perceptions of stress except on the dimension "restriction of self and other adult activities" (Weinberg & Richardson, 1981, p. 692). There were also significant differences between working and stay at home mothers. Working mothers reported higher levels of stress in the area of 'less time for self'.

Younger (1984) assessed several factors that predict stress in mothers of infants six to eight weeks of age. Parenting stress was significantly mediated by the personality type of the mother. Mothers high on interpersonal adequacy, intrapersonal values, achievement potential, and intellectual interest scored the lowest parenting stress scores as measured by the Parenting Stress Index (Abidin, 1986). In this study, the early time period of the data collection may have confounded the results as many women may not have fully recovered from the labour and delivery, or may not have had time to settle in to the new role of parent.

Parental locus of control, stress, and role satisfaction, were compared in clinic and control mothers (Mouton & Tuma, 1988). Findings support the hypothesis that clinic mothers are more likely to exhibit higher levels of parental stress, more external locus of control, and less satisfaction in their parenting roles than control mothers. A high level of external locus of control indicated that the clinic mothers neither accepted responsibility for their child's behavior nor believed that they were able to control it. Parents who exhibited an external locus of control were also more likely to have a child with behavior problems.

Several studies have been conducted on the outcome of high levels of parenting stress. Abidin and Wilfong (1989) found that despite high levels of maternal stress in mothers of two year olds, the mothers were still able to make appropriate decisions

regarding whether to seek health care for their child. However, Abidin (1982) found traumatic injuries in two to four year old children to be associated with parental stress level. Low stress (detached) mothers and high stress (disorganized) mothers seemed unable to provide the attention and interactions needed for adequate child care, thus resulting in more frequent and severe accidents.

Bauer and Twentyman (1985) found that child abusing mothers were more 'annoyed' across both social and nonsocial stressors, suggesting a generalized pattern of hyperresponsivity. The data also showed that abusers attribute negative characteristics to their children even when there was little or no informational basis for their judgements. The four stage cognitive-behavioral model of abuse formulated by Twentyman, Rohrbeck, and Amish (1984) states that in Stage 1, the abusing parent initially sets unrealistic expectations for the child, which the child does not conform to in Stage 2. In Stage 3, the parent attributes the child's action to intentional characteristics such as spitefulness, and then reacts excessively, often severely harming the child, in Stage 4. This model seems to incorporate the concept of irrational beliefs that impinge upon a parent's cognitive appraisal of a stressor (their child's behavior) resulting in abuse.

In summary, LeMasters (1957) found parenting young children to be an extensive or severe crisis for both parents that was associated primarily with a lack of time for self. Alpert et al. (1983) and LaRossa (1983) also reported that lack of time and frequent conflicts between child's needs and self needs are associated with high levels of parenting stress. Alpert et al. (1983) reported higher levels of stress for stay at home mothers while Weinberg and Richardson (1981) found that working mothers reported higher levels of stress in the area of 'less time for self'. Ventura (1987) found the multiple role demands (parent, spouse, worker), interactions with spouse and other family members, and infant care, to be problematic for both mothers and fathers, although at a much lower level than that reported by LeMasters (1957). Personality type of the mother was found to be a mediating factor in parenting stress by both Younger (1984), and Mouton and Tuma (1988). Mothers with high interpersonal

adequacy and an internal locus of control reported lower levels of parenting stress. The outcome of high levels of parenting stress were reported to result in higher levels of traumatic injuries in two to four year olds (Abidin, 1982), but did not affect a mother's ability to get medical help for her child when it was required (Abidin, 1989). Child abusing parents have a more negative appraisal of their children's behavior than non-abusing parents, even when the appraisal was unwarranted (Bauer & Twentyman, 1985).

A series of related studies were conducted to investigate the relationship between parenting stress and parenting irrational beliefs. Ackerman (1991) conducted several studies to assess the relationship between irrational beliefs about parenting and levels of parenting stress in mothers of children under the age of three years. A correlation coefficient of .47 was found between parenting stress and parenting irrational beliefs for a sample of 50 mothers in the first study and on a second, larger sample of 129 mothers. As well, 39% of mothers agreed, and 7.8% strongly agreed with the statement "I find being a parent stressful." Examination of responses to individual items suggested that parents are more irrational in certain areas. Fifty-seven percent of the mothers report they constantly worry some harm will come to their child, and 47% felt that parents must be loved by their children.

A study by Starko (1991) used the Parent Irrational Belief Scale (PIBS) and the Parenting Stress Index (PSI) with a sample of 23 married couples with children under the age of three. There was a correlation of .52 between parents' total score on the PSI and the PIBS. For mothers, the correlation between the PSI and PIBS total scores was .40 ($p=.03$), while the fathers showed a relationship of .63 between the PSI and the PIBS. The correlations for the mothers in the sample are slightly lower (.40 vs. .47) than those reported by Ackerman (1991).

The correlations between the PIBS and the PSI marks the first research to be completed with fathers using these two measures. Starko (1991) found no difference between mothers' and fathers' levels of irrational beliefs about parenting. Since previous research has found that mothers have significantly higher parenting stress

levels than fathers (Abidin, 1986), it was expected that mothers would also hold more irrational beliefs about parenting.

Langford (1988) investigated the relationship between mothers' irrational beliefs about parenting using the Parent Irrational Belief Scale, and Social Isolation, Sense of Competence, and Relationship with Spouse subscales of the Parenting Stress Index. There was a significant correlation between irrational beliefs and mothers' sense of competence (.41) and between irrational beliefs and the relationship with spouse subscales of the PSI (.33). There was a significant correlation between irrational beliefs and social isolation (.48). In general, high levels of irrational beliefs are correlated with low levels of sense of competence, a poor relationship with spouse, and grater levels of social isolation.

Research conducted on the variables of income, level of education, parent age, and number of children as they relate to parenting stress shows mixed results. Socioeconomic status and education level are generally unrelated to parenting stress (Ackerman, 1991; Crnic & Booth, 1991) but were found to correlate negatively with mothers' irrational beliefs (Ackerman, 1991). Subjects with a household income greater than 40 thousand dollars per year were significantly more rational according to the Parent Irrational Belief Scale than subjects in the 20-30 thousand dollar range (Ackerman, 1991). It is possible that rather than income directly influencing irrational beliefs, it may affect other factors, such as education level, which then influence irrational beliefs.

Parent age has been found to be a strong predictor of parenting stress. Umberson (1989) found that for both mothers and fathers, older parents reported a higher quality relationship with their children. Similar findings are reported by Goldsteen and Ross (1989). It is speculated that older parents are better equipped financially and psychologically for parenting than are younger parents (Umberson, 1989).

The relationship between number of children in the family and parenting stress is not clear in the literature reviewed. Ackerman (1991) and Pittman, Wright, and Lloyd (1989) found no significant difference between the number of children, parenting stress

and parenting difficulty. Goldsteen and Ross (1989) found that the more children a young mother has, the more burdened she feels, but, that increasing numbers of children have little effect on older mothers.

An area of research that has recently been receiving more attention is gender differences in parenting. Abidin (1986) found that mothers had significantly higher stress levels than fathers, however, subsequent research using the Parenting Stress Index has not showed similar results (Crnic & Booth, 1991; Starko, 1991). As well, Pittman et al. (1989) found that mothers and fathers showed considerable similarity in the basic structure of their respective models of parenting difficulty. In contrast, Umberson (1989) found that although mothers and fathers did not differ in their reported quality of relationships with their children, mothers were significantly more likely than fathers to report that their children placed too many demands on them. Similar results were reported by Scott and Alwin (1989) who found that mothers expressed significantly greater role demands and parental strain than fathers. They propose that this gender difference in parenting stress is the result of women being more socialized than men into taking responsibility for relationships and therefore more likely to experience the greater stresses associated with intimacy and emotional involvement.

On the basis of the literature reviewed in the area of parenting stress it seems that parenting is not a uniformly positive or negative experience. Levels of parenting stress are correlated with multiple variables including: unrealistic expectations of parenting (Bauer & Twentyman, 1985; LeMasters, 1957), multiple role demands of parent, spouse, worker (Ventura, 1987), lack of time for self (Alpert et al., 1983; Harriman, 1983; & LaRossa, 1983), overcommitment to motherhood (LaRossa, 1983), personality type of the mother (Younger, 1984), parental locus of control (Mouton & Tuma, 1988), and irrational beliefs about parenting (Ackerman, 1991; Langford, 1988; & Starko, 1991).

Irrational Beliefs

Rational-emotive therapy (RET) is a cognitive-affective theory that was developed and first published in 1962 by Albert Ellis. The central tenet of RET is that it is not the occurrence of an event that is upsetting - it is our view or interpretation of the event that causes the upset (Ellis, 1977). Or, in RET terms, the Activating Event (A) does not directly cause the emotional and behavioral Consequence (C) or outcome, it is our Beliefs (B) about A that create the upsetting emotional response. Ellis labels these beliefs as irrational when they are unrealistic, empirically invalidated thoughts that usually take the form of rigid, dogmatic, absolutist shoulds, oughts, musts, or demands (Ellis, 1977; 1987).

Ellis (1977) states that whenever we experience distinct emotional problems they are probably stemming from one of four related areas of irrational beliefs: 1) you think that someone or something should, ought, or must be different from the way it actually does exist, 2) you find it awful, terrible, or horrible, when it is this way, 3) you can't bear, stand, or tolerate this person or thing that you concluded should not have been as it is, and, 4) you believe that for you or others to make mistakes in life should result in nothing good in your life, and you should be punished, and receive the label of louse, or rotten person.

An update of these four areas by Ellis (1987) has resulted in the classification of irrational beliefs into the following groups: 1) irrational beliefs about competence and success, 2) irrational beliefs about love and approval, 3) irrational beliefs about being treated fairly, and 4) irrational beliefs about safety and comfort. Ellis (1973) believes that all humans have a tendency toward irrational thinking and that this tendency is both innate and learned. As we struggle toward our goal of happiness in life we are often thwarted by reality, which means that things do not always turn out as we would wish. The healthy human reaction is to experience some frustration, anger, disappointment, or sadness about the negative event, but to return to the goal and either readjust it or attempt to reach it by another method. Reacting rationally to life's events

then, causes some disturbance but not long-term self destructive behavior. On the other hand, reacting with irrational beliefs to an activating event means that a more severe emotional disturbance occurs. This over-reaction to the event then results in feelings of anxiety, worthlessness, and depression that Ellis labels as self-defeating conduct (Ellis, 1973).

RET is a theory that emphasizes an individual's control over his or her own destiny:

> once you accept the fact that external events (including early conditioning) significantly contribute to but do not actually cause your feelings, and that you largely feel the way you think, you enormously increase your power over your own emotions. (Ellis, 1977, p. 8)

Measuring Irrational Beliefs. The measurement of irrational beliefs has come under some criticism (Smith, 1982; Smith & Allred, 1986). Some of the problems are directed at the apparent lack of discriminant validity in many of the measures of irrational beliefs that are currently used (Smith & Zurawski, 1983). To demonstrate good discriminant validity, a measure of irrational beliefs should show some degree of correlation with other measures of emotional distress, but should correlate more highly with a second measure of irrational beliefs. Zurawski and Smith (1987) found that two commonly used irrational belief scales; the Irrational Belief Test (IBT; Jones, 1986), and the Rational Belief Inventory (RBI; Shorkey & Whiteman, 1977), correlate as highly with various measures of distress as with each other which shows a lack of discriminant validity. Smith and Allred (1986) proposed that by focusing on specific rather than general irrational beliefs, a scale may be able to avoid affective item content and the associated problem of lack of discriminant validity.

Ackerman (1991) attempted to overcome the problem of weak discriminant validity when measuring irrational beliefs by developing the Parent Irrational Belief Scale (PIBS), which assesses irrational beliefs in a limited domain of functioning. Tests that measure theoretically different constructs should not correlate highly with each other. The PIBS did not correlate highly with the Parental Sense of Competence

scale or the Internal-External Locus of Control Scale, thus demonstrating the discriminant validity between the three scales. A moderately high degree of relationship to a general irrational belief scale (r=.69) indicates the PIBS has an acceptable level of convergent validity.

Irrational Beliefs and Emotional Distress. The main tenet of the rational-emotive model is that irrational beliefs mediate the relationship between environmental events and emotional distress. Researchers found that the endorsement of irrational beliefs moderated the relationship between life changes and physical distress, but not the relationship between life changes and psychological distress (Smith, Boaz, & Denney, 1984). One explanation for the lack of predicted interaction between life change and psychological distress is that the subject's self-reports of psychological distress may have been contaminated by irrational beliefs, thus suppressing the moderating influence of irrational beliefs (Smith et al., 1984).

Deffenbacher, Zwemer, Whisman, Hill, and Sloan (1986) found that anxious overconcern, personal perfection, catastrophizing, and helplessness were central irrational beliefs predictive of trait anxiety. Problem avoidance, anxious overconcern, and helplessness were most predictive of speech anxiety for both males and females.

In a study designed to assess the relationship between irrational beliefs and the perceived impact of stressful life events, general support for Ellis' (1962) rational-emotive therapy model was shown (Vestre & Burnis, 1987). Findings suggested that "individuals who possess high levels of irrational beliefs may be more reactive to stressful life vents and more vulnerable to the adverse physical and psychological consequences of such events than individuals who possess low levels of irrational beliefs" (Vestre & Burnis, 1987, p. 187). As with all correlational studies, cause and effect cannot be determined and it may be that disturbed emotion causes irrational beliefs instead of the reverse or some other factor(s) causes both. The authors also note that other variables, such as social support systems, may account for some portion of the variance in the perceived impact of stressful life events.

In summary, Ellis' theory of irrational beliefs looks at the role our belief system plays in mediating our experience of stress. While it is difficult to prove Ellis' theory, several studies do lend support to the idea that irrational beliefs are correlated with emotional distress (Deffenbacher et al., 1986; Smith et al., 1984). The use of the Parent Irrational Belief Scale (Ackerman, 1991) is proposed to overcome the difficulties of weak discriminant validity associated with existing measures of irrational beliefs.

Marital Adjustment

Although marital adjustment to parenthood was initially viewed as a time of crisis by LeMasters (1957), these conclusions have not been fully supported by further research. Other investigators found first-time parenthood to be a moderately stressful change at best (Hobbs & Cole, 1976), while several studies found the addition of a baby to the marriage to be a positive experience for some couples (Russell, 1974; Wright, Henggeler, & Craig, 1986).

Wives typically report a greater degree of negative change in the marriage than husbands after becoming parents (Belsky et al., 1983, 1985, 1989). There are several reasons why the adjustments seem to be greater for women than men. Research in the area of role theory and violated expectations concerning the division of household labour and child care indicates that some of the negative change in marital satisfaction for wives may be due to husbands not assisting with housework or participating in child care as much as their wives expected (Belsky, Lang, & Huston, 1986; Ruble et al., 1988; Tomlinson, 1987). In fact, Cowan and Cowan (1988) found that for both parents the level of satisfaction with the division of labor, rather than the actual division of labor, was correlated with higher self-esteem, lower parenting stress, and higher marital quality after childbirth. Ruble et al. (1988) also noted that "the performance of the bulk of the domestic chores at a time often experienced as physically and emotionally draining may lead to negative feelings on the part of new mothers toward their husbands" (p. 79).

The change in the division of labour toward a more traditional model independent of the couples' pre-existing division of labour, or their sex role ideology, has also been identified as a variable in wives' decline in marital satisfaction (Belsky et al., 1986). Results of Belsky et al. (1986) showed that the more the division of labour changed toward traditionalism, the greater the decline in wives' evaluations of the positive aspects of marriage. As well, wives who did not ascribe female sex-typed attributes to themselves (relative to those who see themselves in sex-stereotyped ways) were more likely to evaluate their marriage less favorably from before to after parenthood when roles shift toward greater traditionalism.

Kotler (1985) reports that:

> low levels of marital quality are associated with a more rigid division of duties and responsibilities, each spouse having little regard for the changing needs of the other, with a separation of leisure pursuits, with little sharing of daily individual experiences, with emotional detachment, and some intolerance of perceived deficits in the partner. (p. 406)

Another variable postulated to predict the decline in marital satisfaction from pre to post-natal is pre-birth marital satisfaction. Several studies have found the level of marital satisfaction existing before parenthood to be the best single predictor of marital satisfaction post-birth (Tomlinson, 1987; Wright et al., 1986). Couples who have a strong marital relationship may be better able to cope with the demands and adjustments required to take on the new role of parenting. Perhaps they are more supportive of one another, or are more capable of dealing with conflict constructively.

Belsky and Rovine (1990) found that marital decline after childbirth was associated with higher scores on a measure of romance in the marriage prenatally. They hypothesize that relatively high levels of romance may reflect an unrealistic understanding of the dynamics of a marital relationship over the long term.

Studies of the impact of family of origin experiences on marital adjustment to parenthood have found that retrospective reports of the relationship between mother and father in one's family of origin reliably predicted changes in marriage from

pre-natal to post-natal. Couples who report being raised in a warm, supportive home by parents with a harmonious relationship reporting less decline in their own marriage after the birth of their first child (Belsky & Isabella, 1985; Lane, Wilcoxin, & Cecil, 1988).

Perceived parenting stress has also been studied as a predictor variable for changes in marital adjustment from pre-natal to post-natal (Wallace & Gotlib, 1990). These authors found that lower prenatal marital adjustment, combined with elevated stress regarding one's parenting competencies, predicted lower dyadic adjustment during couples' first transition to parenthood.

In summary, marital adjustment to parenthood has been extensively researched dating back to the initial study by LeMasters (1957) that showed adjustment to parenthood to be a time of crisis. Subsequent research has found the transition for couples to parenthood to be more moderate with several positive aspects as well as negative (Hobbs & Cole, 1976; Wright et al., 1986). Variables related to marital adjustment to parenthood include: 1) gender, with women generally reporting a greater decline in marital satisfaction post natally than men (Belsky et al., 1986; Ruble et al., 1988), 2) level of premarital satisfaction (Tomlinson, 1987; Wright et al., 1986), and 3) impact of family of origin experiences (Belsky et al., 1985; Lane et al., 1988).

Spousal Support and Marital Adjustment as Mediators of Parenting Stress

The positive effects of social support have been studied in the research literature, both before and after the hallmark work of Cobb (1979). Social support is usually conceptualized as either instrumental, consisting of help with the tasks generated by the stress events, or expressive, consisting of emotional assistance and support to deal with the feelings aroused by the event. Social support can cover a broad range of possibilities from family of origin, community, job and church, to agency.

Stemp, Turner, and Noh (1986) found that social support, when assessed by 'supportive network', did not influence changes in distress, however, when social support was operationalized as marital intimacy, a significant association with

post-partum di tress was observed in married women. High levels of marital intimacy were correlated with reduced levels of post-partum distress.

Several studies have found low marital adjustments to be significantly correlated with high levels of parenting stress (Mouton & Tuma, 1988; Russell, 1974; Webster-Stratton, 1989; & Younger, 1984), however, the evidence is not entirely conclusive as one study reported a significant difference between depressed and non-depressed mothers and parenting stress, but not for marital adjustment or spousal support (Webster-Stratton & Hammond, 1988).

Belsky (1984) states that "the marital relationship is the first-order support system, with inherent potential for exerting the most positive or negative effect on parental functioning" (p. 90). However, it is important to remember that in line with Belsky's (1984) model of parenting stress, marital quality itself is a function of both the developmental histories and the personalities of the individuals in the relationship. Marital relations may therefore not influence parenting directly, but instead have an impact on the psychological well-being of individuals, which then influences the skills they exercise in the parenting role (see Figure 2).

Webster-Stratton (1989) conducted a study of 117 mothers and 85 fathers in which results showed that low marital satisfaction for mothers was significantly correlated with high parenting stress on the Parenting Stress Index (PSI) Parent Domain subscale. Low marital satisfaction for mothers was also correlated with an increased number of mother commands and increased child noncompliance. The fathers' low marital satisfaction was also significantly correlated with high parenting stress on the PSI and showed a similar tendency (p.05) to be correlated with increased father commands and child noncompliance. While cause and effect cannot be presumed from correlational data, the results are nonetheless interesting from a therapeutic point of view. If marital satisfaction were to be improved through marital counselling, would either parent, or both, report lower levels of parenting stress?

The review of two studies on the stresses associated with parenting a handicapped child show that spousal support is a key variable in predicting adaptation to the child's

dysfunction (Friedrich, 1979; Nihira, Meyers, & Mink, 1980). Friedrich (1979) found that in a step-wise multiple regression, marital satisfaction was the best overall predictor of the coping behavior of mothers with handicapped children, accounting for 79% of the predictive ability. Nihira et al. (1980) state that "the family is likely to feel that the handicapped child has major impact on the family life when there is marital disharmony between the parents or other family conflict" (p. 21).

Younger (1984) found the quality of support from the spouse (as measured by the spousal support subscale of the Social System Checklist), to be the support variable with the strongest relationship to Total Stress and Parent Domain Stress on the PSI. Younger (1984) postulates that social support may influence the experience of parenting stress in two ways, 1) interaction with significant others may modify the individual's perception of the event(s) and mitigate the stress potential, and 2) social support may reduce the amount of change necessary in role acquisition, which may lessen the strain as parents take on the new role of parenting.

Gage and Christenson (1991) investigated the correlation between the amount and perceived usefulness of help received prior to becoming a parent and indicators of personal, family, and infant well-being. This 'level of socialization' to parenting was found to be predictive of personal and family well-being for both mothers and fathers. Concurrent socialization experiences such as talking with other parents, professionals and spouse, and taking parenting classes were correlated with more outcome measures and had higher correlation coefficients than anticipatory socialization experiences such as previous babysitting, care of siblings, and observing own parents care for siblings. Talking with spouse was cited as a particularly helpful experience for both mothers and fathers.

A recent study was completed by Crnic and Booth (1991) on the minor daily hassles associated with parenting children aged 9-36 months. The study was undertaken to investigate how the perception of minor stresses may be mediated by parental social support networks and social cognitive levels of child development. They found no difference between the overall amount of hassle perceived by the father

and mothers, with both reporting a significant increase in the intensity of parenting hassles with increasing child age. Support did not serve as a moderator of parenting hassles for mothers but did serve such a function for both parenting and general life satisfaction. Findings for fathers were similar to those for mothers although fathers reported a stronger correlation between hassles and parenting during the infancy period than did mothers. Support for the hypothesis that parenting stress was related to parents' social cognitive levels involving understanding the complexity of child development was equivocal. Parents with a good understanding of appropriate child behaviors given the developmental age of the child did not always report lowered levels of parenting stress. Intimate support from the marital partner was not directly related to parenting hassles for either mothers or fathers but had a primary role as a moderator of hassles on indices of parenting and life satisfaction.

The studies reviewed on the role of spousal support as a correlate of parenting stress generally show that low levels of marital adjustment are significantly correlated with high levels of parenting stress (eg. Mouton & Tuma, 1988; Webster-Stratton, 1989; Younger, 1984). Only one study reviewed found that marital adjustment and spousal support were not significantly correlated with parenting stress although the relationship was in the expected direction (Webster-Stratton & Hammond, 1988). The 'closer' the support (i.e., marital intimacy) and the more concurrent it is, the higher the correlation with a reduced level of parenting stress (Stemp et al., 1986; Gage & Christenson, 1991). However, as with all studies of this nature, correlation does not imply causality. It could be that parents with lower parenting stress levels have more time and energy to invest in their marriage which leads to increased marital satisfaction.

Summary

The review of literature has been focused on parenting stress, irrational beliefs, marital adjustment to parenthood, and spousal support in the transition to parenthood. Many factors that contribute to parental stress have been identified. Among these are:

1) an increase in workload and responsibility, and the resulting lack of time for self and spouse (Alpert et al., 1983; LeMasters, 1957; LaRossa, 1983); 2) personality variables such as overcommitment to parenting (in women) (LaRossa, 1983), external locus of control in mothers (Mouton & Tuma, 1983), hyperresponsivity and attribution of negative characteristics of children by mothers (Bauer & Twentyman, 1985), parenting irrational beliefs in mothers (Ackerman, 1991; Langford, 1988), and fathers (Starko, 1991); and 3) lack of spousal support in the transition to the new role of parenting (Cowan & Cowan, 1988; Friedrich, 1979; Nihira et al., 1980; Younger, 1984).

Much of the research to date has focused on assessing levels of maternal parental stress. Less work has been done on assessing paternal stress, or on comparing mothers' and fathers' levels of stress and the associated variables. As well, there were no studies found that looked at both irrational beliefs and marital adjustment as predictors of parental stress in mothers and fathers. Considering these findings, it seems that existing research in the area of parenting stress could be enhanced by the addition of a study that would look at the relationship between irrational beliefs about parenting, marital adjustment, and level of parenting stress in both mothers and fathers.

Research questions include:

1. What are the levels of parental stress, parenting irrational beliefs, marital adjustment, and general levels of stress for mothers and fathers? Are there significant differences between mothers and fathers on any of these variables?

2. How do the levels of parenting stress, parenting irrational beliefs, marital adjustment, and general stress compare to available normative data?

3. What is the relationship among parenting stress, parenting irrational beliefs, marital adjustment, and selected demographic variables for mothers and for fathers?

4 What is the relationship among parenting stress, parenting irrational beliefs, and marital adjustment between mothers and fathers?

5 What is the relationship between the predictor variables of parent irrational beliefs, marital adjustment, and selected demographic variables, to parenting stress?

In Chapter III the research methodology to answer the above questions will be discussed.

Chapter III Methodology

Introduction

This study was designed to examine the relationship among several variables: gender of the parent, irrational beliefs about parenting, marital adjustment, and parenting stress. The variables were assessed by self-report instruments completed separately by both mothers and fathers. Demographic data was gathered through a questionnaire and contained questions on the health status of the child, age of the child and of the parents, age of siblings, length of time parents were married, income level, work status, and level of education.

The remaining sections of this chapter include a description of the sample, procedures, measuring instruments, and the research questions and data analysis of the study.

Sample

Data was collected from 62 couples in the greater Edmonton area. Participation was voluntary and was solicited through several sources. Seven daycares (one public non-profit and six private) were selected from the telephone book to represent the four general areas of the city. Two nursery school programs (public non-profit) were also chosen to represent a sample of mothers working part-time or staying at home full-time. Criteria for inclusion in the study was: 1) parents of a child who was three years of age or younger, and, 2) willingness of both parents to devote approximately 45 minutes of their time for the completion of the paper and pencil questionnaires.

The rational behind the restriction of the age of the children to three years and younger was to ensure that the parents surveyed were at approximately the same stage of parenting and should therefore be experiencing similar concerns. Infants under the age of two months were excluded from the study to avoid the initial post-partum period that involves both a physiological adjustment for mothers, as well as a honeymoon

stage for both parents before the adjustment of parenting begins (Miller & Sollie, 1980). Three years was selected as the upper age limit to measure the levels of parenting stress in families with a young child. The study was not restricted to parents of only children but data was collected on only one child within the family.

Procedure

Seven daycares were selected from the telephone book to represent the four different areas of Edmonton. Two nursery school programs which were both known to the researcher were also recruited. The directors of each centre were contacted by telephone, briefed on the purpose and procedures of the study, and then asked if they were interested in participating in the study. Participation involved allowing the researcher to place the questionnaire package along with a letter of explanation (Appendix A) in the mailbox of each eligible child at the daycare or nursery school. Parents who did not wish to participate in the study were asked to return the package to their daycare director or mail it back unanswered to the researcher. All the packages contained a pre-addressed stamped envelope.

Over 300 couples were given a questionnaire package that included a cover letter outlining the nature of the study and a blank questionnaire for both mother and father (to be completed independently and with reference to one child only). A follow-up letter requesting parents to return their questionnaire (completed if possible) to the researcher was placed in the mailbox of 144 of the couples one month after the initial package was distributed (Appendix B).

Measuring Instruments

Parenting Stress Index (PSI). The Parenting Stress Index (PSI; Abidin, 1986) is a 101-item questionnaire designed to identify the source and degree of stress present in the parent-child system. The PSI yields a total score, three domain scores, and 15 subscale scores. Six of the subscale scores contribute to the Child Domain, and consist

of characteristics of the child that a parent perceives as stressful to deal with. The Child Domain subscales include: child adaptability, acceptability of the child to the parent (physical and personality characteristics), degree of demandingness/bother, child mood, child distractibility/activity, and the child's reinforcing qualities (i.e., does the parent perceive the child as a source of positive reinforcement). The Parent Domain measures some of the main parent characteristics and family context variables that have been identified as influencing the parent's ability to function as a competent care-giver. The subscales include: parent depression, parent attachment to the child, restrictions imposed by the parental role, parent's sense of competence, social isolation, relationship with spouse, and physical health. The third domain, the Life Stress Scale, is a measure of situational and demographic factors that are considered to be stressful, such as death of a family member or a change of jobs.

The PSI was normed on a non-clinical population of predominantly white mothers with children between the ages of one month to 19 years of age, although limited father norms are also provided in the manual. The PSI scales have demonstrated the following alpha reliability coefficients in the norming population: Child Domain, .89; Parent Domain, .93; Total Stress, .95. One year Test-Retest reliability coefficients for parents of 18 month-old children are: Child Domain, .55; Parent Domain, .65; and Total Stress Score „.70. The PSI is widely used in research and the test manual provides a large number of studies demonstrating adequate construct, concurrent, and discriminant validity (Abidin, 1986).

Parent Irrational Belief Scale (PIBS). The Parent Irrational Belief Scale (PIBS; Ackerman, 1991) is a 22-item scale based on Ellis' (1962) 11 basic irrational beliefs. The PIBS contains two statements of irrational beliefs related to parenting for each of Ellis' eleven statements of irrational beliefs. For example, the irrational belief that it is essential for humans to be loved by all significant others in their lives is reflected in the following parenting irrational beliefs in the PIBS: 1) parents must be loved by their children, and 2) I must always be a loving parent in order to gain the approval of my child. Irrational ideation is conceptualized as a unitary construct which may be

manifest in varying degrees. Factor analysis of the PIBS revealed six factors with eiganvalues greater than one. The first factor accounted for 27.6% of the variance and the other five factors each account for less than 10 percent. The six factors together accounted for 58.9% of the total variance. The six factors are: Worry, Rigidity, Secure Need for Perfection, Insecure Need for Perfection, Indecision, and Tendency to Catastrophize.

Validity of the PIBS was tested by computing Pearson product-moment correlations between the PIBS, the Rational Belief Inventory (RBI), the Parental Sense Of Competence scale (PSOC), the Internal-External Locus of Control Scale (I.E.), and the Parenting Sense of Competence subscale of the PSI. The PIBS was found to have acceptable convergent validity by correlating highly with the RBI (r =.69). The low correlations between the PIBS and the PSOC (r =.11), the PIBS and the I.E. (r =.10), and the moderate correlation with the Parenting Sense of Competence Scale of the PSI (r =.48) demonstrate acceptable levels of discriminant validity (Ackerman, 1992). The total scale alpha reliability coefficient is .86.

Dyadic Adjustment Scale (DAS). The Dyadic Adjustment Scale (DAS; Spanier, 1976) is a 32-item scale that gives an overall measure of dyadic adjustment, as well as four components (dyadic satisfaction, dyadic cohesion, dyadic consensus, and affectional expression) that are conceptually empirically related to dyadic adjustment. The total scale alpha reliability coefficient is .96, with the subscales reporting the following reliabilities: Dyadic Consensus, .90; Dyadic Satisfaction, .94; Dyadic Cohesion, .86; and Affectional Expression, .73. Content and construct validity are both adequate as reported by Spanier (1976). The ability of the DAS to assess couples as married or divorced (a measure of concurrent validity) is very good, with mean total scores for each group significantly different at the .001 level of probability. The DAS is a well known instrument for measuring dyadic adjustment and is extensively used in research.

Research Questions and Statistical Analysis

The following research questions were investigated in this study using the data analyses described.

1. What are the levels of parental stress, parenting irrational beliefs, marital adjustment, and general stress for mothers and fathers? Are there significant differences between mothers and fathers on any of these variables?

Descriptive statistics (means, standard deviations, ranges, and frequencies) were computed for the total and subscale measures of parenting stress, parenting irrational beliefs, and marital adjustment. T-tests were performed between the total and subscale means of the measures to test for significant differences between the mothers' and the fathers' means.

2. How does the data collected compare to available normative data?

Z-tests were computed between the total and subscale means of the measures and normative data for both mothers and fathers to test for significant differences.

3. What is the relationship among parenting stress, parenting irrational beliefs, marital adjustment, and the demographic variables such as: health status of the child, age of the child and parents, income level, work status, and level of education of the parents?

A correlational analysis was conducted to determine whether there were any significant correlations among the selected variables and the demographic variables. Anova's splitting the data into one child and two child families, and young parents and older parents were also conducted. A one way analysis of variance was done to determine if there was a significant difference for parenting stress and level of education for mothers and fathers.

4. What is the relationship among parental stress (dependent variable) and the independent variables of parenting irrational beliefs and marital adjustment for mothers and fathers?

A Pearson product-moment correlational analysis was conducted between total and subscale scores for each of the measures for both mothers and fathers.

5. What is the relationship between the predictor variables of parent irrational beliefs, marital adjustment, and selected demographic variables to parenting stress?

Regression analyses were conducted for both mothers and fathers to examine the predictors of parental stress.

Data Analysis

There were five components to the data analysis: 1) descriptive statistics (means, standard deviations, ranges, and frequencies) on the questionnaire data; 2) comparisons of the questionnaire data with normative data; 3) Pearson product-moment correlations among all the measures, and a comparison of husband-wife correlations; 4) Anova's and 5) development of a regression equation to predict parental stress for both mothers and fathers from the measures of irrational beliefs and marital satisfaction. A significance level of .05 was used to reject the statistical null hypothesis.

In the following chapter the results of the study are presented. A discussion of the results is contained in Chapter V.

Chapter IV Results

This study was undertaken to investigate the relationship among parenting stress, irrational beliefs about parenting, and marital adjustment, in parents of children under the age of three. In this chapter a description of the sample of parents and children is summarized. Descriptive statistics (means, standard deviations, ranges, frequencies, statistical significance (p)) for each of the three scales employed (the Parenting Stress Index, Parent Irrational Belief Scale, and the Dyadic Adjustment Scale) are presented and there is a comparison of the results to existing normative data.

The correlations among the scores on the self-report measures and a number of demographic variables for mothers and fathers, and the correlations between the mothers' and the fathers' scores are set out. Significant differences between the correlational patterns and t-tests of the mothers' and fathers' scores are highlighted.

Following the results of the correlational analyses is the section covering the results of the Anova's. The Anova's were conducted to examine differences between one and two child families, and younger and older parents. A summary of the results of the study is found at the end of this chapter.

Description of the Sample

The cohort in this study consisted of 62 couples who were parents of a child under the age of three years (Table IV-I). Since the study was not limited to single child families, it would have been possible for the mother and father to answer the Parenting Stress Index questionnaire in response to a different child. However, 61 of the 62 couples chose the same child within their family. A total of 81 couples sent back completed or partially completed questionnaires. Sixty two of 81 were included in the data analysis due to missing data such as only one parent filling out the questionnaire. As participation in the study was voluntary and anonymity was guaranteed, it is not known to the researcher which of the 300 couples to whom the questionnaires were distributed chose to complete and mail in the questionnaire.

All of the couples in the sample were married, with the length of time married ranging from three to seventeen years. The mean length of marriage is 7.9 years, standard deviation is 3.3 years. The results are summarized in Tables 1 and 2.

The age of the mothers in the sample ranged from 25 to 41 years with a mean of 32.4 years and a standard deviation of 3.3 years. The ages of the fathers ranged from 26 to 43 years with a mean of 34 years and a standard deviation of 3.8 years.

Ninety three percent were the biological parents of the child, 6.5% of the children were adopted. Forty-three percent of the children are an only child, 42.3% have one sibling, 9.8% have two siblings, and 1.6% have three siblings.

Minor health problems (colds, flu) were experienced by 92.7% of the children, with 4% having moderate, and 3.2% having severe health problems. Ninety-eight percent have no handicaps and 2% have a minor handicap.

Child care arrangements for the children include full-time daycare (42%), at home full-time with a parent (21%), part-time daycare (21%), and part-time babysitter/nanny (9.7%). Thirty- four percent of the parents are satisfied and 58% are very satisfied with their child care arrangements. Forty-two percent of the mothers in the sample work full-time outside the home, 31% work part-time, 13% work at home as the primary caregiver, 13% are classified as "other", and 2% are unemployed. Eighty-one percent of fathers work full-time outside the home, 3.2% part- time, and 16.1% are classified as other (student, etc.).

The level of education of the mothers ranged from a high school diploma or less (13.3%), to completion of graduate school (13.3%). Fifty-three percent of the sample of mothers had graduated from college or university, while 20% had some vocational or college training. Education level of the fathers was similar with 21.3% having completed graduate or professional school, 52.5% a college or university degree, 18% with some college or vocational, and 8.2% with a grade 12 (or less) education. The parents in this study are better educated than the general population.

TABLE IV-1

Summary of the Demographic Data

	Mothers n=62		Fathers n=62	
	Frequency	Percent	Frequency	Percent
Parent's Age				
20-25 years	1	1.8%	0	0
26-30 years	16	28.1%	15	25.4%
31-35 years	30	52.6%	23	39.0%
36-40 years	9	15.8%	17	28.8%
41-45 years	-	-	4	6.8%
	Mean 32.4 years (S.D.=3.3)		Mean 34.1 years (S.D.=3.8)	
missing	5		3	
Work Status				
F/T at home	8	12.9%	-	-
F/T outside of home	26	41.9%	50	80.6%
P/T outside of home	19	30.6%	2	3.2%
Other (student, etc.)	8	12.9%	10	16.1%
Unemployed	1	1.6%	-	-
Education Level				
9-12th grade	8	13.3%	5	8.2%
Some voc. or college	12	20.0%	11	18.0%
College/Univ. graduate	32	53.3%	32	52.5%
Grad./Prof. degree	8	13.3%	13	21.3%
missing	2		1	

TABLE IV-2

Demographic Data Mothers and Fathers Combined

Variable	Frequency (n=62 couples)	Percentage
Sex of Child		
girl	25	41.0
boy	36	59.0
(1 missing case)		
Age of Child		
2-8 months	4	6.5
9-18 months	11	17.7
19-24 months	18	29.0
25-36 months	29	46.8
mean 23.7 months (S.D.=8 months), range 2-35 months		
Number of Children in Family		
one	28	45.9
two	26	42.6
three	6	9.7
four	1	1.6
(1 missing case)		
Length of Marriage		
3-5 years	17	27.4
6-10 years	36	58.1
11-15 years	6	9.7
16+ years	3	4.8
mean 7.9 years (S.D.=3.3 years), range 3-17 years		
Child Care Arrangements		
Full-time daycare	26	41.9
Full-time with parent	13	21.0
Part-time daycare	13	21.0
Part-time sitter	6	9.7

Data on income level was collected separately for mothers and fathers but is considered to be invalid as most of the mothers seemed to misunderstand the question and reported family rather than individual income.

Data from questions asking the involvement of the spouse in raising the children indicates that 66% of the mothers report their husbands are very involved, 27.4% report "usually involved", and 6.5% are undecided about their husbands' level of involvement in raising the children. Ninety-eight percent of husbands report their wives to be "very involved" and 1.6% report "usually involved" in raising the children.

Frequency data for the question on satisfaction with the level of spousal involvement for wives is that 54.8% are very satisfied, 37% are usually satisfied, 4.8% are undecided, and 3.2% are usually dissatisfied with their husbands' level of involvement in raising the children. Husbands report that 90% are very satisfied and 10% are usually satisfied with the level of their wives' involvement in raising the children.

Almost 60% of the sample report that they go out as a couple with their spouse (without the children) less than once per month. Twenty-four percent of the couples go out once per month, 13% go out together 2-3 times per month, and 5% go out as a couple 4-6 times per month.

In summary, the 62 couples who participated in the study were all married, with an average age of 32 for mothers and 34 for fathers. Most of the fathers work full time, while the mothers' employment status was split between 40% full time, 31% part time, 13% at home full time, and 13% as students. The parents are generally well educated. Most of the children were in daycare (42% full time and 21% part time), with 21% at home full time with a parent and 10% having a part time babysitter. The children of the parents in the study were all reported to be healthy and in the majority of cases (93.5%) were the biological children.

Most of the parents in the study were happy with their childcare arrangements and with the level of help they received from their spouses with the children. Most of the

parents surveyed go out as a couple without the children once a month or less than once a month (84%).

Summary Statistics on the Parenting Stress Index (PSI), Parent Irrational Belief Scale (PIBS), and the Dyadic Adjustment Scale (DAS)

The following sections contain the means, range, standard deviations, percentiles (where applicable), and statistical significance (p) obtained from the mothers and fathers on the three self-report measures. Table IV-3 provides a summary and comparison of the data for mothers and fathers from the sample in this study, while Table IV-4 provides a comparison of the data in this study to available normative data.

Analysis of the Parenting Stress Index (PSI). For the mothers in the sample, the mean total score is 223.9 with a range of 135 to 309 and a standard deviation of 33.2. This score falls at the 55th percentile when compared to the norms. According to Abidin (1986), the normal range for the total score in the Parenting Stress Index is 180 to 250 (approximately the 15th to the 80th percentile). This sample of mothers does not seem to be experiencing undue levels of total parenting stress.

The presence of scores below 175 may be indicative of dysfunction in the parent-child system (Abidin, 1986). Some parents who earned extremely low scores may be defensive, fearful, mildly paranoid, or have little investment in the role of parent (minimal involvement with their children) (Abidin, 1986). Four of the 62 mothers (6 percent) surveyed in this sample had a score below 175 which is expected in a normal distribution of scores.

According to Abidin (1986), scores above 260 are considered to be indicative of high stress in the parent-child system, with parents scoring above 267 on the PSI being offered a referral for professional consultation. Of the sample of mothers in this study, 10 of 62 (16 percent) scored 260 or higher, with 6 of those 10 scores higher than 267. In a normal distribution of scores it would be expected that 16% of the scores should fall one standard deviation above the mean which is equal to a score of 260 or higher

TABLE IV-3

Range, Mean, Standard Deviation, Percentiles, and Level of Statistical Significance (p) of Scores Between Mothers and Fathers on the Parenting Stress Index (PSI), PSI subscales, Parent Irrational Belief Scale (PIBS), Dyadic Adjustment Scale (DAS), and DAS subscales

	Mothers			Fathers			
	Range	Mean (S.D.)	%ile	Range	Mean (S.D.)	%ile	(p)
PSI Total Score	135-309	224(33)	55	128-314	216(37)	45	.16
Child Domain Total Score	69-138	97(15)	45	58-147	98(18)	45	.88
Adaptability	13-36	25(5)	55	16-40	26(5)	60	.23
Acceptability	7-17	11(3)	40	7-20	11(3)	45	.67
Demandingness	10-31	18(4)	55	9-32	18(5)	50	.30
Child Mood	5-17	10(3)	55	5-17	10(3)	55	.98
Distractibility	12-34	24(5)	50	14-35	24(5)	55	.49
Reinforces Parent	6-17	10(3)	60	6-19	9(3)	55	.33
Parent Domain Total Score	66-179	127(22)	60	70-173	119(21)	45	.03*
Depression	9-33	20(6)	55	9-33	17(4)	30	.00*
Attachment to Child	7-18	12(3)	45	7-27	13(3)	60	.05*
Role Restriction	7-35	20(5)	60	8-28	18(5)	45	.06
Sense of Competence	15-42	28(5)	50	15-43	27(6)	40	.08
Social Isolation	6-22	14(4)	65	7-24	14(4)	65	.22
Relationship/Spouse	7-29	19(5)	70	7-28	16(4)	50	.00*
Physical Health	8-21	14(3)	80	7-21	13(3)	75	.03*
Life Stress	0-8	3(2)	25	0-9	3(2)	25	.22
PIBS	28-71	49(9)	50	28-63	46(8)	50	.10
DAS Total Score	68-136	108(13)	-	64-138	110(14)	-	.14
Dyadic Consensus	34-62	47(6)	-	28-64	48(7)	-	.41
Affectional Expression	3-12	8(2)	-	4-11	8(2)	-	.41
Dyadic Satisfaction	19-46	38(5)	-	26-47	39(4)	-	.05*
Dyadic Cohesion	6-23	14(4)	-	5-23	15(4)	-	.25

+ percentiles are based on normative data from a sample of mothers (PSI, Abidin, 1986), (PIBS, Ackerman, 1991)

* p is set at .05 (2 tailed t-test)

TABLE IV-4

Comparison of Means, Standard Deviations, and Z-tests between the Sample and Available Normative Data for the Parenting Stress Index (PSI), Parent Irrational Belief Scale (PIBS), and the Dyadic Adjustment Scale (DAS)

		My Sample		Normative Population		
Mothers/Fathers		Mean	S.D.	Mean	S.D.	(p)
PSI Total	M	224	33	221	39	.28
	F+	216	37	202	27	.00*
	F*	216	37	221	39	.16
PSI Child Domain	M	97	15	98	19	.33
	F+	98	18	93	12	.00*
	F*	98	18	98	19	.39
PSI Parent Domain	M	127	22	123	25	.11
	F+	119	21	109	18	.00*
	F*	119	21	123	25	.11
PIBS	M	49	9	48	12	.42
	F#	46	8	48	12	.07
DAS Total	M	108	13	115	18	.00*
	F	110	14	115	18	.02*
DAS Dyadic Consensus	M	47	6	58	9	.00*
	F	48	7	58	9	.00*
DAS Affect/Expression	M	8	2	9	2	.00*
	F	8	2	9	2	.00*
DAS Dyadic Satisfaction	M	39	5	41	7	.01*
	F	39	4	41	7	.12
DAS Dyadic Cohesion	M	14	4	13	4	.03*
	F	15	4	13	4	.002*

+norms are based on a sample of 100 fathers (Abidin, 1986)
*father means for this sample compared to mother normative means (Abidin, 1986)
#father norms are unavailable, mother norms are from Ackerman (1991)

on the PSI. So although some of the mothers in this cohort are experiencing very high levels of parenting stress, this is expected and indicates that the mothers in this cohort are representative of the sample from which they were drawn.

Total stress scores for fathers were slightly lower than for the mothers with a mean of 216.2, range 128 to 314, and a standard deviation of 36.5. This score falls at the 45th percentile as compared to the normative sample of mothers (n=534) in the PSI manual (Abidin, 1986). Seven of the 62 fathers scored below 175 and 10 of 62 scored above 260, with 6 of those 10 above the 267 mark. This was similar to the mothers' data.

If the data from the sample of fathers in this study is compared to the fathers' normative data from the PSI manual, then a much greater number of fathers score higher than one standard deviation away from the mean than when compared to the mothers' normative data. The mean PSI total score for the normative fathers' sample was 201.6 and the standard deviation was 26.5. Twenty two of 62 fathers in this study had PSI total scores of 228 or higher (more than one standard deviation above the mean).

The difference between the mothers' and fathers' means for the Parenting Stress Index total score was not statistically significant ($p = .16$). In other words, there was no difference in the total amount of parenting stress reported by mothers and fathers. A comparison of the means for this sample to the normative sample was also not significant ($p = .28$) for the mothers, $p = .16$ for the fathers, when compared to mothers' norms). The parents in this study are not experiencing greater amounts of parenting stress than the normative population of mothers. The fathers' stress score was significant ($p < .00$) when compared to the fathers' norms, with the sample of fathers in this study reporting more parenting stress than a normative population of fathers.

Further examination of the Child Domain total scores and the Parent Domain total scores highlight several differences between mothers' and fathers' sources of parenting stress. The mothers in this sample had a mean Child Domain total score of 97.3 (standard deviation 15.4). This score was at the 45th percentile when compared to the

sample in the PSI manual (Abidin, 1986). There was no significant difference between the means for this sample and the normative sample ($p = .33$).

The mean score on the Child Domain scale for fathers was 97.7 with a standard deviation of 18.2. As for the mothers, the fathers' scores are at the 45th percentile and are not significantly different from the normative sample of mothers ($p = .39$). When the fathers' scores are compared to the normative sample of fathers (with a mean of 92.9 and a standard deviation of 11.9) we see a significant difference between the means ($p < .00$) with this sample of fathers reporting greater levels of parenting stress than a normative population of fathers. There was no significant difference between the means for the mothers (97.3) and the fathers (97.7) for the Child Domain scale of the PSI ($p = .88$).

There was a statistically significant difference between the means for the mothers (126.6) and the fathers (118.5) for the Parent Domain scale of the PSI ($p = .03$). According to Abidin (1986), high scores on the Parent Domain (153) suggest that the sources of stress and potential dysfunction of the parent child system may be related to dimensions of the parents' functioning such that the parents feel overwhelmed and inadequate to the task of parenting. Therefore, the mothers in this cohort reported significantly more difficulty in functioning with the stresses associated with being a parent than the fathers.

The percentile ranking for the mothers' mean was 60 and for the fathers' mean was 45 for the Parent Domain of the PSI. There was no statistically significant difference between the mothers' mean of this sample and the normative population ($p = .11$) and between the fathers' mean of this sample and the mothers' normative population ($p = .40$), however, the difference between the fathers' mean of this sample and the fathers' mean for the Parent Domain from the PSI manual was statistically significant ($p = .00$). It appears that although the fathers in this sample had statistically significant lower Parent Domain scores than the mothers indicating they experienced less stress than the mothers, their scores were statistically significantly higher than a

normative population of fathers, indicating that the fathers in this sample were experiencing higher levels of parenting stress than a comparison population.

Other statistically significant differences between the mothers' and fathers' means of this sample include the scores on the Depression, Parental Attachment, Relationship with Spouse, and Physical Health subscales of the PSI. Mothers were more depressed, report a less satisfactory relationship with their husbands, are more attached to the child, and have poorer physical health (since becoming a parent) than fathers.

The mothers' higher Depression scores were statistically significant ($p<.00$) when compared to the fathers' scores (mothers are more depressed), however the mothers' depression scores were not statistically significant when compared to the normative population ($p=.44$). The higher scores for mothers than fathers were a result of the frequency of responses to three items within the subscale. Two of the items were related to the immediate post-partum period with the child as a newborn, and the third item was related to feeling responsible for the child's misbehavior. Twenty-seven percent of mothers agreed or strongly agreed with the statement "when my child misbehaves or fusses too much I feel responsible, as if I didn't do something right", while only 9.7% of fathers agree with the statement.

The mothers' Relationship with Spouse scores were significantly higher than the fathers' scores ($p<.00$). The mothers' scores are also significantly higher than the normative population ($p=.01$). The higher scores for mothers than fathers in this sample are indicative of mothers who are lacking in the emotional and active support of the other parent in the area of child management (Abidin, 1986). The elevated mothers' scores are related to the items of the subscale that include less support and help from their husbands than expected with the child (65% of mothers agree), and much less interest in sex with their husbands since having children (65% of mothers agree).

On the Parental Attachment subscale of the Parent Domain, the mothers' mean score was significantly lower than the fathers' ($p=.05$) indicating that the mothers feel a greater sense of emotional closeness to the child and are better able to accurately read

and understand the child's feelings and/or needs (Abidin, 1986). The items on the subscale related to the elevated father's scores are "when I was young, I never felt comfortable holding or taking care of children" (40% of fathers, 18% of mothers agreed with this statement), and "it takes a long time for parents to develop close, warm feelings for their children" (16% of fathers, 1.6% of mothers agreed or strongly agreed with this statement). Compared to the normative population, this sample of mothers has a significantly healthier attachment to their child ($p=.02$). The level of attachment reported by the fathers in this study was not significantly different than the levels reported by the normative population of mothers ($p=.22$) but was significantly higher than the normative population of fathers ($p<.00$) indicating that the sample of fathers in this study reported a less satisfactory level of attachment to their child than does the normative population of fathers.

The difference between the mothers' and fathers' means in this sample was statistically significant ($p=.03$) for the Physical Health subscale of the Parent Domain of the PSI. The mothers' mean was higher than the fathers' mean which suggests a deterioration in physical health for the mothers in this sample since becoming a parent. The items on the subscale that relate to the elevated mothers' mean are "having a child has caused changes in the way I sleep" (38.7% of mothers, 19.4% of fathers strongly agree with this statement), "physically, I feel good most of the time" (14.5% of mothers, 9.7% of fathers disagree with this statement), and "I don't enjoy things as I used to" (21% of mothers, 11.3% of fathers agree with this statement). This cohort of parents reported a significantly poorer level of physical health than the normative population of both mothers and fathers ($p<.00$).

There was no significant difference between the mothers' and fathers' means for the Adaptability, Acceptability, Demandingness, Child Mood, Distractibility, and Child Reinforces Parent subscales of the Child Domain, and the Role Restriction, Sense of Competence, and Social Isolation subscales of the Parent Domain of the Parenting Stress Index.

The mean total score for the mothers in this sample for the Life Stress scale of the PSI was 2.8, with a range of 0-8 and a standard deviation of 2.0. This score was at the 25th percentile when compared to normative data, indicating that the mothers in this sample are experiencing low levels of stress from outside the parent-child relationship (eg., death of relative, loss of job). The fathers' mean total score was similar to the mothers, with a mean of 2.6, range of 0-9, and a standard deviation of 1.8. These scores were also at the 25th percentile.

Analysis of the Parent Irrational Belief Scale (PIBS). Mean, standard deviation, range, and percentile scores for the PIBS are presented in Table IV-3. The mean total score for the mothers in this sample was 48.5, with a range of 28-71, and a standard deviation of 8.6. This score was at the 50th percentile when compared to normative data (Ackerman, 1991) and the difference between the two means was not statistically significant (p=.42).

The mean total score for the fathers in this sample on the PIBS was 46.0, with a range of 28-63, and a standard deviation of 7.8. This score was also at the 50th percentile when compared to normative data (Ackerman, 1991) and was not statistically significant (p=.07). The norms in Ackerman (1991) are based on a sample of mothers and normative data for fathers is not yet available. Although the mean score for the mothers was slightly higher than for the fathers in this sample, suggesting that mothers may hold more irrational beliefs about parenting than fathers, the difference was not statistically significant (p=.10).

Examination of responses to individual items shows that parents hold more irrational beliefs about parenting in certain areas. The first factor is labelled as a "Worry" factor. Items loading on this factor include "I constantly worry that some harm may come to my child" (24% of mothers, 21% of fathers agreed or strongly agreed with this statement), "I must always be a loving parent in order to gain the approval of my child" (32.3% of mothers, 24% of fathers agreed or strongly agreed with this statement), and "I have no choice but to feel hurt when criticized as a parent" (27% of mothers, 16% of fathers agreed or strongly agreed with this statement). In

response to the item "I constantly worry that I will make a terrible mistake as a parent", 21% of mothers and 3% of fathers agreed or strongly agreed with the statement.

A second factor labelled "Rigidity" includes items such as "Whether I am a good or bad parent depends entirely on the way I was raised as a child". Ten percent of mothers and 16% of fathers agreed or strongly agreed with this statement.

The factor labelled "Insecure Need for Perfection" includes the item "Parents must be loved by their children", to which 54% of mothers and 52% of fathers agreed or strongly agreed. Thirteen percent of mothers and 5% of fathers agreed that "Whenever I have to make a decision concerning my child I ask someone for advice." The factor labelled "Tendency to Catastrophize" includes the item "I get terribly upset when I see people treating their children differently than I would", to which 21% of mothers and 19% of fathers agreed or strongly agreed.

Several items indicative of more rational beliefs about parenting were highly endorsed by both mothers and fathers. Over 90% of mothers and fathers disagreed or strongly disagreed with the statement "If I am not a perfect parent, then I am a failure." As well, 97% of mothers and 94% of fathers agreed or strongly agreed with the statement "I have faith in my own ability to deal with most problems that I may encounter as a parent." Ninety- three percent of mothers and 97% of fathers disagreed or strongly disagreed with the statement "When my child does something wrong I feel that I have failed as a parent."

In summary, the irrational beliefs about parenting held by the parents in this study were average when compared to a normative population. There was no statistical difference between mothers' and fathers' scores on the PIBS for the parents in this study.

Analysis of the Dyadic Adjustment Scale (DAS). Means, standard deviations, and ranges for the DAS scores are presented in Table IV-3. The mean total score for the mothers in this sample on the DAS is 108, with a range of 68-136 and a standard deviation of 12.8. The mean total score for the normative sample was 115 with a standard deviation of 17.8 (Spanier, 1976). The difference between the mean of the

sample in this study and the normative mean was statistically significant ($p<.00$). According to Spanier (1976), a high score on the DAS reflects a better marital relationship, therefore, the mothers in this sample reported a significantly lower level of dyadic adjustment than the normative population.

The mean total score for the fathers in this sample on the DAS was 110.0, with a range of 64-138, and a standard deviation of 13.6. The difference between this mean and the normative mean of 114.8 was statistically significant ($p=.02$). The difference between the mothers' mean (108) and the fathers' mean (110) for this sample was not statistically significant ($p=.14$). This means that the parents in this study reported lower levels of dyadic adjustment than a normative population, but are in agreement with each other as to the level of their dyadic adjustment.

The mean score for the mothers on the Dyadic Consensus subscale in this sample was 47 (standard deviation of 6). For fathers, the mean score on this subscale was 48 (standard deviation of 7). Dyadic consensus is a measure of the perceived agreement between spouses on matters of important to dyadic functioning such as handling family finances, amount of time spent together, and making major decisions. The difference between the mothers' and fathers' mean scores for this sample was not statistically significant ($p=.41$). The difference between the means of this sample and the normative mean of 58 (standard deviation of 9) was statistically significant ($p<.00$ for mothers, $p<.00$ for fathers) indicating that this sample reports lower levels of dyadic consensus than a normative population. In other words, the parents in this sample both agreed that they do not agree on many things important in a relationship, and this level of disagreement is significantly lower than the average population.

The mothers' mean score for the Affectional Expression subscale was 8.0 (standard deviation 2). For fathers, the mean score on this subscale was 8 (standard deviation 2). Affectional Expression was a measure of the perceived amount of agreement between marriage partners on issues of intimacy and expression of love. The difference between the mothers' and the fathers' mean scores was not statistically significant ($p=.41$). The difference between the means for this sample and the

normative mean of 9 (standard deviation 2) were statistically significant ($p<.00$ for mothers, $p<.00$ for fathers) with this sample reporting lower levels of affectional expression. This means that the parents in this sample reported lower than average levels of affectional expression in their marriage.

The mean score for the mothers on the Dyadic Satisfaction subscale for this sample is 38 (standard deviation 5). The fathers' mean score was 39 (standard deviation 4). The difference between these two means was statistically significant at the .05 level ($p=.05$). Dyadic Satisfaction is a measure of the perceived level of happiness and commitment to the marriage. When compared to the normative mean of 41 (standard deviation 7), the difference for mothers was statistically significant ($p=.01$) with this sample of mothers reporting lower levels of dyadic satisfaction than the normative population. The difference between the fathers' mean in this sample and the normative population was not significant ($p=.12$). In other words, the mothers in this sample are significantly less happy with their marriage than the fathers. This lower level of marital happiness was significantly lower than the normative population of mothers.

The fourth subscale of the DAS is the Dyadic Cohesion subscale. Dyadic Cohesion is a measure of the perceived companionship in a marriage. For example, spouses were asked to report on how often they work together on a project or have a stimulating exchange of ideas. For this sample, the mothers' mean score was 14 (standard deviation 4) and the fathers' mean score was 15 (standard deviation 4). The difference between the two means was not statistically significant ($p=.25$). Compared to normative data the difference between this sample of mothers and fathers and a normative population was significant ($p=.03$ for mothers, $p<.00$ for fathers) with this sample reporting higher levels of dyadic cohesion than the normative population. For this sample of parents, both mothers and fathers report a higher than average level of cohesion in their marriage.

Differences Between Mothers and Fathers

Analysis of Variance (Anova). A series of Anova's were performed to address differences between mothers and fathers on several variables. For the first one-way Anova, mothers and fathers were split into two groups according to the number of children (1 or 2) in the family to assess whether levels of parenting stress, parent irrational beliefs, and marital adjustment varied between one and two child families (n=29 for one child families, n=26 for two child families). Mothers and fathers of two children did not report higher levels of parenting stress than parents of only one child ($F=.04$, $p=.84$). There was also no difference between mothers and fathers of one or two children for level of irrational beliefs about parenting ($F=.75$, $p=.39$).

There was no difference between mothers and fathers of one or two children for overall level of dyadic adjustment ($F=1.13$, $p=.29$). The only statistically significant difference between mothers and fathers of one vs. two children was on the Dyadic Cohesion subscale of the Dyadic Adjustment Scale. Fathers of two children had a significantly higher level of dyadic cohesion than mothers of two children, and mothers of one child had a significantly higher level of dyadic cohesion than mothers of two children ($F=5.4$, $p=.02$). This data, however, should be interpreted with caution, as with the number of variables compared, one might expect that this result would occur by chance.

Level of education and parent stress were compared using several one-way Anova's. For mothers the only significant difference for parenting stress means across the various levels of education was for dyadic satisfaction ($F=4.25$, $p=.05$). College graduates report a higher level of marital satisfaction than women with a Graduate level degree. This difference should be noted with caution as given the number of variables it is possible that the significant F ratio is due to chance. Results for fathers' level of parenting stress by education indicate that there was no significant difference for parenting stress across the various levels of education.

A one-way Anova was done to compare younger mothers and fathers (age 30 or younger) to older mothers and fathers (age 35 or older) on their levels of parenting stress. There was no difference between younger and older mothers on the Child Domain (F=1.19, p=.28) and Parent Domain (F=1.47, p=.24) of the PSI and on the PSI total score (F=1.71, p=.20) (n=17 mothers age 25-30, 15 mothers age 35 and older). There was also no difference between younger and older mothers on level of marital adjustment (F=.28, p=.60), or level of irrational beliefs about parenting(F=.00, p=.98).

Similar to the mothers' data, there was no difference between younger and older fathers on the Child Domain (F=2.02, p=.16) and Parent Domain (F=.04, p=.85) of the PSI and on the PSI total score (F=.71, p=.41) (n=15 fathers age 25-30, 21 fathers age 35 and older). There was no difference between younger and older fathers' level of marital adjustment (F=.19, p=.67), or irrational beliefs about parenting (F=.24, p=.63).

Correlational Data. The correlational data for this study is presented in Tables IV-5 and IV-6. Pearson product-moment correlations between the scores on the three self-report measures and the demographic variables are discussed in Table IV-5. The correlations between mothers and fathers on the three self-report measures are contained in Table IV-6.

The demographic variables included in the analysis were number of children in the family, age of the child, sex of the child, and age of the parent. Separate correlational matrices were produced for mothers and fathers. An alpha level of .05 was selected.

For the mothers in this sample, there were some statistically significant correlations with respect to maternal age. A correlation coefficient of -.28 (p=.02) was found between the PSI Total score and maternal age. Generally, the older the mother in the sample, the less parenting stress she reported. A correlation of -.22 (p=.05) was found for the PSI Child Domain and -.27 (p=.02) for the PSI Parent Domain and maternal age. As expected, there was a statistically significant positive correlation between maternal age and number of children (r=.27, p=.02) and the age of the child (r=.30, p=.01). There was no correlation between maternal age and the Parent Irrational Belief Scale (r=.05, p=.35), or the Dyadic Adjustment Scale (r=.10, p=.23).

TABLE IV-5

Pearson-Product Moment Correlations Between the Parenting Stress Index (PSI), Parent Irrational Belief Scale (PIBS), Dyadic Adjustment Scale (DAS), and Various Demographic Data for Mothers and Fathers

	Mothers/Fathers								
	PSI Total	PSI C.D.	PSI P.D.	PIBS	DAS	Num-child	Age Child	Sex Child	Age Parent
PSI Tot	1.0	.85*	.93*	.43*	-.48*	-.01	.18	-.03	-.28*
	1.0	.91*	.94*	.38*	-.41*	.01	.16	.10	-.02
PSI C.D.	.85*	1.0	.59*	.33*	-.33*	-.03	.18	.01	-.22*
	.91*	1.0	.71*	.32*	-.33*	-.09	.08	.00	-.07
PSI P.D.	.93*	.59*	1.0	.43*	-.49*	-.00	.14	-.05	-.27*
	.94*	.71*	1.0	.38*	-.42*	.10	.21*	.17	.03
PIBS	.43*	.33*	.43*	1.0	-.26*	-.14	.09	-.02	-.05
	.38*	.32*	.38*	1.0	-.28*	-.13	.04	.00	.10
DAS Tot	-.48*	-.33*	-.49*	-.26*	1.0	.15	-.18	.10	.10
	-.41*	-.33*	-.42*	-.28*	1.0	.15	-.18	.10	-.11
Num-child	-.01	-.03	-.00	-.14	-.09	1.0	.20	.11	.27*
	.01	-.09	.10	-.13	.15	1.0	.20	.11	.13
Age child	.18	.18	.14	.09	-.17	.20	1.0	-.04	.30*
	.16	.08	.21	.04	-.18	.20	1.0	-.04	.25*
Sex child	-.03	.01	-.05	-.02	.09	.11	-.04	1.0	-.03
	.10	.00	.17	.00	.10	.11	-.04	1.0	-.08
Age Parent	-.28*	-.22*	-.27*	-.05	.10	.28*	.30*	-.03	1.0
	-.02	-.07	.03	.10	-.11	.13	.24*	-.08	1.0

n=62

*significant at the .05 level

C.D.=Child Domain, P.D.=Parent Domain
Numchild=Number of children in the family

TABLE IV-6

Pearson-Product Moment Correlations Between Mothers' and Fathers' Scores on the Parenting Stress Index (PSI), Parenting Irrational Belief Scale (PIBS), and the Dyadic Adjustment Scale (DAS).

	FPSI Total	FPSI C.D.	FPSI P.D.	FPIBS	FDAS Total
MPSI Total	.27*	.28*	.21*	.04	-.20
MPSI C.D.	.34*	.40*	.23*	.14	-.13
MPSI P.D.	.17	.15	.16	-.04	-.21*
MPIBS	.20	.21*	.17	-.01	-.19
MDAS Total	-.30*	-.29*	-.27*	-.14	.73*

n=62 couples
*significant at the .05 level
C.D.=Child Domain
P.D.=Parent Domain

For the mothers in this sample, a correlation coefficient of .43 ($p<.00$) was found between the PSI Total score and the PIBS indicating a statistically significant relationship between parenting stress and parenting irrational beliefs. The correlations between the subscales of the PSI and the PIBS for mothers are outlined in Table IV-7. The PIBS and the Child Domain of the PSI are correlated .33 ($p<.00$), while the PIBS and the Parent Domain are correlated .43 ($p<.00$).

Three of the six subscales with the Child Domain of the PSI (Child Adaptability, Child Demandingness, and Child Distractibility), were significantly correlated with the PIBS for mothers in this sample. The Child Distractibility subscale had the highest correlation with the PIBS ($r=.52$). It seems that mothers who rated their children high on the subscale of Child Distractibility (i.e., as easily distracted, restless, and overactive, with difficulty following directions) also tended to hold a higher level of irrational beliefs about parenting. The correlation between the PIBS and the Child Adaptability subscale was .27. This means that mothers who rated their child as having low adaptability to new situations and schedule changes, tend to hold more irrational beliefs about parenting than those mothers who rated their child as easily adaptable. A correlation of .24 was found between the PIBS and the Child Demandingness subscale of the PSI. In other words, the mothers in this sample who rate their child as placing many demands upon their time, also reported higher levels of irrational beliefs about parenting than mothers who rated their child as less demanding. The subscales that showed no correlation with the PIBS were Child Acceptability, Child Mood, and Child Reinforces Parent. It appears that the mothers' perception of how acceptable her child is to her, the child's general mood, or the reinforcing qualities of the child, are not correlated with irrational beliefs about parenting.

All of the subscales of the Parent Domain except Physical Health showed a significant correlation with the PIBS for the mothers in this sample. Mothers who are depressed, have a low level of attachment to their child, feel restricted by their role as a parent, have a low sense of competence as a parent, feel socially isolated from other adults, and have a poor relationship with their spouse tended to hold more irrational beliefs about parenting.

TABLE IV-7

Correlations between the PSI, DAS, and the PIBS for Mothers and Fathers

Correlation	Mothers	Fathers
PSI Total r PIBS	.43*	.38*
PSI Child Domain r PIBS	.33*	.32*
PSI Adaptability r PIBS	.27*	.35*
PSI Acceptability r PIBS	.06	.20
PSI Demandingness r PIBS	.24*	.16
PSI Child Mood r PIBS	.01	.15
PSI Distractibility r PIBS	.52*	.33*
PSI Reinforce Parent r PIBS	.00	.17
PSI Parent Domain r PIBS	.43**	.38*
PSI Depression r PIBS	.39*	.40*
PSI Parental Attachment r PIBS	.28*	.33*
PSI Parental Restriction r PIBS	.28*	.23*
PSI Sense of Competence r PIBS	.40*	.42*
PSI Social Isolation r PIBS	.24*	.16
PSI Relationship with Spouse r PIBS	.29*	.07
PSI Physical Health r PIBS	.18	.33*
PSI Total r DAS Total	-.48*	-.41*
PSI Total r DAS Consensus	-.34*	-.45*
PSI Total r DAS Cohesion	-.39*	-.45*
PSI Total r DAS Satisfaction	-.42*	-.34*
PSI Total r DAS Affection	-.46*	-.38*
PIBS r DAS Total	-.26*	-.28*
PIBS r DAS Consensus	-.16	-.22*
PIBS r DAS Cohesion	-.17	-.30*
PIBS r DAS Satisfaction	-.29*	-.23*
PIBS r DAS Affection	-.24*	-.15

*significant at the .05 level of probability

The correlation between the PSI and the DAS Total score was -.48 ($p<.00$) indicating a significant relationship between parenting stress and marital adjustment for mothers. The negative correlation is due to the scoring of the DAS where a high score indicates a better marital relationship. Therefore, in this sample of mothers, a high parenting stress score was correlated with a low level of marital adjustment (and vice versa). The four subscales of the DAS (Consensus, Cohesion, Affectional Expression, and Satisfaction) all correlate with the PSI at a significant level, although none as highly as the total score. The correlation between the PIBS and the DAS total score for this sample of mothers was -.26 ($p=.02$), with high levels of parenting irrational beliefs associated with low levels of marital adjustment. The subscales of the DAS that significantly correlated with the PIBS for mothers were Dyadic Satisfaction ($r=.29$), and Affectional Expression ($r=.24$). Mothers who rated their marriage as unhappy, with low levels of expressed affection and intimacy, tended to hold more irrational beliefs about parenting. Dyadic Consensus (a measure of the level of agreement in the marriage on issues of importance to the functioning of the marriage) and Dyadic Cohesion (the level of commitment to the marriage) were not correlated with irrational beliefs about parenting.

In summary, for the mothers in this sample, the PSI and the PIBS were correlated .43 with higher levels of parenting stress associated with higher levels of irrational beliefs about parenting. The subscales of the Child Domain of the PSI correlated with irrational beliefs about parenting were: Child Adaptability, Child Demandingness, and Child Distractibility. Child Acceptability, Mood, and Reinforcing of Parent all showed no significant correlation with irrational beliefs about parenting. All of the subscales of the Parent Domain (except Physical Health), were significantly correlated with irrational beliefs about parenting. The PSI and the DAS total score and subscales were significantly correlated (-.48). The PIBS and the DAS total score were significantly correlated (-.26). For the mothers in this sample, the Dyadic Satisfaction and Affectional Expression subscales were significantly correlated with the PIBS, but the Dyadic Consensus and Dyadic Cohesion subscales were not.

Correlational patterns for the fathers in this sample differed somewhat from the mother's scores in that there was no correlation between paternal age and level of parenting stress (r=.02, p=.45). As with the mothers, there was no correlation between paternal age and parenting irrational beliefs (r=.10, p=.23), or dyadic adjustment (r=.11, p=.45).

A correlation coefficient of .38 (p<.00) was found between the PSI Total score and the PIBS for the fathers in this sample indicating a significant relationship between parenting stress and parenting irrational beliefs. The correlations between the subscales of the PSI and the PIBS for fathers are outlined in Table IV-7. The PIBS and the Child Domain of the PSI were correlated .32 (p<.00), while the PIBS and the Parent Domain were correlated .38 (p<.00).

Two of the six subscales within the Child Domain (Child Distractibility and Child Adaptability) were significantly correlated with the PIBS for the fathers in this sample. Unlike the mothers, who show the highest correlation between Child Distractibility and the PIBS, the fathers' highest correlation was between the Child Adaptability subscale and the PIBS (r=.35, p<.00). It seems that fathers who rated their child as having low adaptability to changes in their physical or social environment also tended to hold higher levels of irrational beliefs about parenting. The subscales that showed no correlation with the PIBS are Child Acceptability, Child Demandingness, Child Mood, and Child Reinforces Parent.

A greater number of the subscales of the Parent Domain than the Child Domain were correlated with the PIBS for the fathers in this sample. All of the subscales except Social Isolation and Relationship with Spouse showed a significant correlation with the PIBS. Fathers who were depressed, had a low level of attachment to their child, felt restricted in their role as a parent, and who had a low sense of competence about being a parent, tended to hold more irrational beliefs about parenting. In contrast to the mothers in this sample, the fathers' level of social isolation and their relationship with their wife, was not significantly correlated with their level of irrational beliefs about parenting.

The correlation between the PSI and the DAS Total score was -.41 ($p<.00$) for the fathers in this sample, which means that high levels of parenting stress were associated with low levels of marital adjustment. Three of the four subscales of the DAS had a significant correlation with the PSI Total score. Dyadic Consensus, Dyadic Satisfaction, and Affectional Expression were all correlated with parenting stress, while Dyadic Cohesion was not significantly correlated.

The correlation between the PIBS and the DAS Total score for the fathers in this sample was -.28 ($p=.02$), which indicates that higher levels of parenting irrational beliefs are significantly correlated with lower levels of marital satisfaction. Dyadic Consensus, Dyadic Cohesion, and Dyadic Satisfaction, were all significantly correlated with the PIBS, while Affectional Expression was not.

To summarize, for the fathers' data in this study, the PSI and the PIBS were significantly correlated at .38, with higher levels of parenting stress associated with higher levels of irrational beliefs about parenting. The subscales of the Child Domain of the PSI correlated with irrational beliefs about parenting were Child Adaptability and Child Distractibility. Child Acceptability, Demandingness, Mood, and Reinforcing of Parent, all showed no significant correlation with irrational beliefs about parenting. All of the subscales of the Parent Domain, except Social Isolation and Relationship with Spouse, were significantly correlated with irrational beliefs about parenting. The PSI and the DAS total score and subscales were significantly correlated (-.41). The PIBS and the DAS total score were significantly correlated (-.28). For the fathers in this sample, the Dyadic Consensus, Dyadic Satisfaction, and Dyadic Satisfaction subscales were significantly correlated with the PIBS, but the Affectional Expression subscale was not.

Differences between mothers' and fathers' patterns of correlation were as follows. For the Child Domain, the only difference between mothers and fathers was for the Child Demandingness subscale. Mothers' data showed a significant correlation between this subscale and the PIBS (.24, $p=.03$), while fathers' data did not (.16, $p=.11$).

In the Parent Domain of the PSI, there was a significant correlation between the Social Isolation subscale and the PIBS (.24, p=.03) for mothers, but not for fathers. Mothers reporting higher levels of social isolation reported a high level of irrational beliefs about parenting. As well, there was a significant correlation between the Relationship with Spouse subscale and the PIBS (.29, p=.01) for mothers, but not for fathers. Mothers reporting a high score on this subscale (indicating a poor relationship with their spouse) tended to hold more irrational beliefs about parenting than those who reported a good relationship with their spouse.

Fathers reported a significant correlation between physical health and the PIBS (r=.33, p<.00), while mothers did not (r=.18, p=.08). Fathers who reported poor levels of physical health had more irrational beliefs about parenting, and vice versa.

There was a significant correlation between mothers' and fathers' parenting stress levels (r=.27, p=.02), and dyadic adjustment levels (r=.73, p<.00) (Table IV-6). However, there was no correlation between mothers' and fathers' scores on the PIBS (r=-.01, p=.48).

Mothers' scores on the PIBS were not correlated with father scores on the DAS (r=-.19, p=.07), or fathers' scores on the PSI Total (r=.20, p=.06). Mothers' scores on the DAS were not correlated with fathers' PIBS (r=-.14, p=.14), but were significantly correlated with father PSI Total scores (r=-.30, p=.01). The latter correlation indicates that low levels of reported dyadic adjustment for mothers were correlated with high levels of parenting stress for fathers. Fathers' scores on the PIBS were not correlated with mothers' PSI Total scores (r=.04, p=.38) and father DAS scores were not correlated with mothers' PSI Total scores (r=-.20, p=.06).

In summary, there were many statistically significant correlations among the three self report measures, as well as between several of the demographic variables and the level of parenting stress. Both mothers' and fathers' results showed significant correlations between parenting stress, parenting irrational beliefs, and marital adjustment. For mothers, parenting stress was significantly correlated with irrational

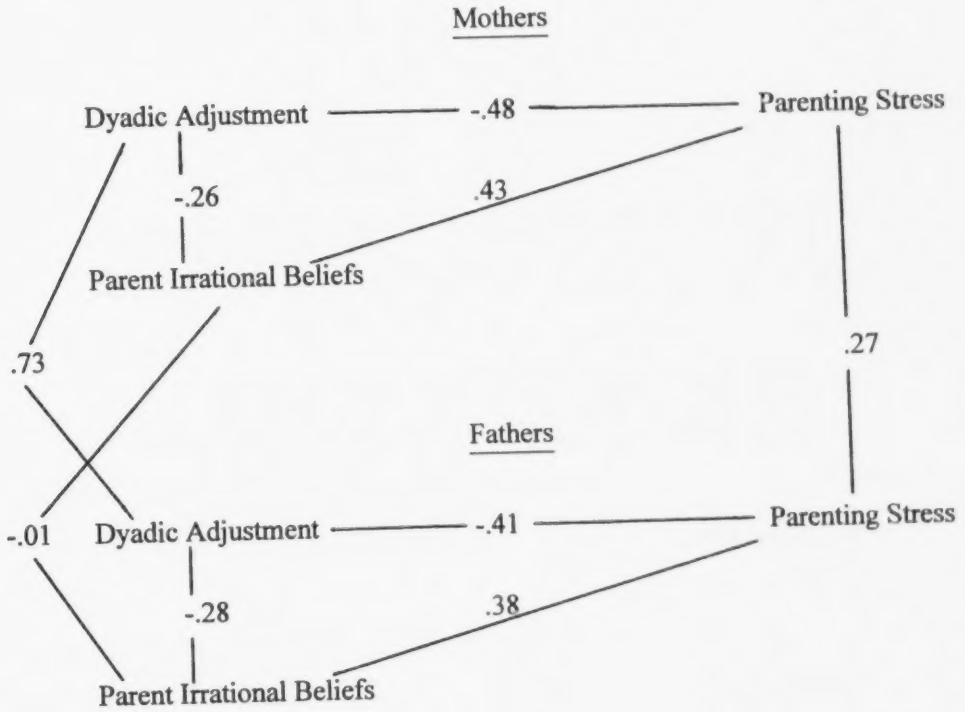
beliefs about parenting (r=.43), and marital adjustment (r=.48). Irrational beliefs about parenting were also significantly correlated with marital adjustment (r=-.26).

Patterns for fathers were similar with parenting stress correlating .38 with irrational beliefs about parenting, and -.41 with dyadic adjustment. Irrational beliefs about parenting were significantly correlated with dyadic adjustment (-.28).

Level of parenting stress between mothers and fathers was significantly correlated (.27), as was level of dyadic adjustment (.73). Level of irrational beliefs about parenting was not significantly correlated between mothers and fathers (-.01) (see Figure 3).

Figure 3

Summary of Correlational Data



Results of the Regression Equations. In the following section the results of the regression analyses used to predict parenting stress (PSI Child and Parent Domains, and PSI total score) from parent irrational beliefs (PIBS), marital adjustment (DAS), and parental age are presented for both mothers and fathers. Several variables were not included in the regression analyses as they were not correlated with either the outcome variable or the other predictor variables. These included level of education and sex of the child. The selected predictor variables were entered in a step-wise equation in the following order dyadic adjustment, parent irrational beliefs, age of parent, and number of children. Separate regression equations were performed for each of the three outcome variables (PSI Child Domain and Parent Domain, and PSI total score) for both mothers and fathers.

The first regression equation constructed for mothers and fathers used the Parenting Stress Index total score (PSITOT) as the dependent or outcome variable. For mothers, the first variable entered in the step-wise equation was the dyadic adjustment total score (DASTOT), which explained 26% of the variance in PSITOT, followed by parent irrational beliefs (PIBS) which increased the explained variance to 34%, and finally maternal age (MAGE), which increased the total variance explained to 39%. Number of children was dropped from the equation as it did not meet the minimum tolerance requirements.

For fathers, dyadic adjustment (DASTOT) was also entered first, followed by parent irrational beliefs (PIBS). The DASTOT score explained 15% of the variance of PSITOT and the addition of the PIBS increased the explained variance to 24%. Parental age and number of children were dropped from the equation as they did not meet the minimum tolerance requirements. These findings for fathers were similar to those for mothers although the predictors are weaker for the father equation.

The second regression equation constructed for mothers and fathers used the Parenting Stress Index Child Domain (PSICDO) score as the dependent or outcome variable. For mothers, only dyadic adjustment (MDASTOT) met the minimum tolerance for inclusion in the equation. The proportion of the variance in the Parenting Stress Child Domain explained by dyadic adjustment is 14%.

For fathers, similar results were obtained. Scores on dyadic adjustment (DASTOT) explained 10% of the variance in the Parenting Stress Index Child Domain scores.

Parental age, number of children, and parent irrational beliefs were not included in the regression equations for either mothers or fathers as they did not meet minimum tolerance.

The third regression equation constructed for mothers and fathers used the Parenting Stress Index Parent Domain (PSIPDO) scores as the dependent or outcome variable. For mothers, two of the predictors were included in the equation. Dyadic adjustment (MDASTOT) was entered first and explained 26% of the variance of MPSIPDO. Parent irrational belief scores were entered next and increased the explained variance to 34%. Maternal age and number of children were not included in the equation as they did not meet minimum tolerance.

For fathers, similar results, although weaker than the mothers, were obtained. Dyadic adjustment (FDASTOT) was entered first and explained 16% of the variance of FPSIPDO. Parent irrational belief scores were entered next and increased the explained variance to 25%. As with the mothers, parental age and number of children were not included in the equation as they did not meet minimum tolerance.

In summary, three separate step-wise regression equations were constructed for both mothers and fathers. Results are similar for both, although the predictive ability of the independent variables is stronger for mothers than for fathers. For each equation parenting stress was used as the dependent variable (PSI Total score, Child Domain score, and Parent Domain score). The predictor having the highest correlation with the outcome variable was dyadic adjustment. Parent irrational belief scores followed in most equations.

For mothers, equation number one (dependent variable PSI Total Score) was the most useful in predicting parenting stress from the independent variables of dyadic adjustment, parent irrational beliefs, and maternal age. The combination of these variables explained 39% of the variance for the PSI Total Score. Equation number

three (dependent variable PSI Parent Domain Score) was also strong with dyadic adjustment and parent irrational beliefs explaining 34% of the variance in PSI Parent Domain scores. Dyadic adjustment was the only variable used to predict parenting stress in the Child Domain equation and it explained 14% of the variance.

For fathers, results differ slightly in that equation number one (dependent variable PSI Total Score) and equation number three (dependent variable PSI Parent Domain) were almost identical. In equation number one, dyadic adjustment and parent irrational beliefs explained 24% of the variance in PSI Total scores while 25% of the variance in PSI Parent Domain scores was accounted for by the same two variables. As with the mothers' analyses, dyadic adjustment was the only variable used to predict parenting stress in the Child Domain and it explained 10% of the variance in PSI Child Domain scores.

Summary of Results

In summary, parents in this study reported average levels of parenting stress and irrational beliefs about parenting, but a lower than average level of marital adjustment, when compared to a normative population. There was no significant difference between mothers and fathers on the PSI Total, PIBS, and DAS Total scores. However, a significantly higher level of parenting stress was reported in the Parent Domain of the PSI for mothers than the fathers in this study.

There was no significant difference between parents of one child vs. two children for level of parenting stress and irrational beliefs about parenting. Mothers of two children reported a significantly lower level of marital adjustment on the Dyadic Cohesion Subscale of the DAS than fathers of two children, and mothers of one child. There was no difference between younger (age 30 or less) and older (age 35 or more) parents for their level of parenting stress, marital adjustment or irrational beliefs.

The correlations between parenting stress, parent irrational beliefs, and dyadic adjustment were statistically significant for both mothers and fathers. For mothers, the

correlations were .43 between parenting stress and parent irrational beliefs, -.48 between parenting stress and dyadic adjustment, and -.26 between parent irrational beliefs and dyadic adjustment. For fathers, the correlations were .38 between parenting stress and parent irrational beliefs, -.41 between parenting stress and dyadic adjustment, and -.28 between parent irrational beliefs and dyadic adjustment. Patterns of correlation between the subscales of the PSI and the PIBS and DAS were similar for both mothers and fathers, with both reporting high correlations between the PIBS and the Parent Domain than the Child Domain. The only difference between the DAS and the PSI for mothers and fathers was for the Dyadic Cohesion subscale. Mothers showed a significant correlation with high scores on the PSI (high levels of parenting stress), correlated with low scores on the DAS (low levels of marital adjustment), while fathers did not. The correlation between mothers and fathers for parenting stress was .27, for parent irrational beliefs was -.01, and for dyadic adjustment was .73.

Results of the step-wise regression analyses indicated that for both mothers and fathers, dyadic adjustment was the best predictor of parenting stress, accounting for 26% of the variance in parenting stress for mothers, and 15% of the variance in parenting stress for fathers. The addition of the PIBS increased the explained variance of parenting stress to 34% for mothers and 25% for fathers. For mothers, the addition of maternal age as a final variable increased total explained variance to 39%.

Chapter V Discussion

In this chapter a summary and discussion of the results of the study is provided within the context of the literature reviewed. The first section will focus on a discussion of the differences between mothers' and fathers' levels of parenting stress, parenting irrational beliefs, and marital adjustment. The second section will cover the summary and discussion of the correlational analyses and regression equations for mothers and fathers. The final chapter will include the limitations of the study and directions for future research.

Summary of Methodology and Sample

Sixty two couples who were parents of a child under the age of three participated in the study. Data was collected using three self-report instruments: the Parenting Stress Index (PSI), the Parent Irrational Belief Scale (PIBS), and the Dyadic Adjustment Scale (DAS). Parents filled out the questionnaires on a volunteer basis and were recruited through daycares and nursery schools.

The sample of parents surveyed for this study were all married and fairly mature with none of the parents younger than 25. The majority of the parents were well educated with over half of both the mothers and fathers having graduated from college or university.

Summary and Discussion of the Results of the PSI, PIBS, and DAS

As a group, the parents in this study reported average levels of parenting stress. Comparison of this sample of parents to a normative population of mothers indicates that their scores on the PSI are not significantly different. However, as outlined in the results chapter, comparison of the fathers in this sample to a normative population of fathers did yield a statistically significant difference. The fathers in this sample reported significantly higher levels of parenting stress than the normative population of

fathers. Twenty two of 62 fathers (34%) had PSI scores that were one standard deviation or greater above the mean of a normative population of fathers. In a normal distribution we would expect to see about 14% of scores one standard deviation above the mean so this result is unexpected. Possible reasons for this finding are discussed later within this chapter.

Although the difference between the mothers' and fathers' mean scores on the PSI total score are in the expected direction, with fathers reporting lower levels of parenting stress than mothers, the difference did not reach statistical significance as would be predicted by Abidin (1986). There was no significant difference between the mothers' and fathers' scores for the Child Domain of the PSI; however, this sample of mothers is significantly more stressed in the Parent Domain of the PSI than the fathers. There was a significant difference between mothers and fathers on four of the subscales of the Parent Domain scale of the PSI. Mothers reported higher levels of depression, a poorer relationship with their spouse, more attachment to their child, and a poorer sense of physical health (since having children) than fathers.

Abidin (1986) noted that a poor relationship with spouse score by mothers plays a role in parenting stress by indicating that the mothers are lacking the emotional and active support of their husbands in the area of child management. In this study, 65% of mothers agreed or strongly agreed with the statement that they receive less support and help with their child from their husbands than they had expected. Belsky, Lang, and Huston (1986) and Ruble et al. (1988) report similar findings, with mothers reporting lower levels of marital adjustment than fathers as a result of 'violated expectations' regarding sharing of the child care workload.

Mothers in this study reported a significantly greater sense of emotional closeness to their child than did fathers (Parent Attachment subscale of the PSI). Scott and Alwin (1989) reason that fathers have less invested emotionally than mothers in relationships, and that this emotional distance buffers them from experiencing the stresses associated with caring. Nearly 44% of the mothers in this sample stayed at home full time or part

time with the children, which may also account for the higher levels of parental attachment for mothers than fathers.

Mothers also reported a significantly poorer level of physical health since becoming a parent than fathers. Much of their elevated score was due to the items on the PSI related to loss of sleep, and changes in sleep patterns since becoming a parent. The fact that mothers seem to suffer more than fathers is probably due to their higher level of involvement with their child (i.e., it may be that in most families it is the mother who copes with the demands of night time parenting). However, both mothers and fathers in this sample reported a significantly lower level of physical health than the normative population of parents. Loss of sleep is cited as a major factor in parenting stress by both LeMasters (1957) and LaRossa (1983).

Both mothers and fathers in this study reported lower than average levels of stress from events and factors outside of the parent-child relationship. Therefore, the finding that the fathers in this sample were more stressed than fathers in the normative population is not likely due to external sources of stress. Perhaps the fathers in this sample are more involved in parenting than the average father and are therefore experiencing the concomitant increase in parenting stress.

As indicated by the Parent Irrational Belief Scale, the parents in this study reported an average level of irrational beliefs about parenting relative to parents in general. As well, there was no significant difference between the mothers' and fathers' means for the parents in the study for irrational beliefs about parenting. Since a significantly higher level of parenting stress for mothers than fathers is often cited in the literature and was found in this study on the Parent Domain of the PSI, it was expected that the mothers in this study might also report a significantly higher level of irrational beliefs than fathers. The reason for this expectation is that it could be hypothesized that one of the reasons mothers are more stressed out than fathers is their tendency to over-react to perceived stressors (i.e., their irrationality results in their perception of parenting as stressful). The myth of the 'hysterical, irrational mother' vs. the 'calm, detached father' is therefore not generally supported by the findings of this

study, however, a slightly higher percentage of mothers in this study than fathers supported several irrational beliefs about parenting. For example, in the PIBS, the statement "I must always be a loving parent in order to gain the approval of my child" is endorsed by 32% of mothers, while only 24% of fathers agree.

One of the statements on the PIBS reflective of an inability to make choices about how one feels is: "I have no choice but to feel hurt when criticized as a parent." In this study, 27% of mothers and 16% of fathers agreed with this statement. According to Ellis, it is irrational to believe that because something bad happens to us, we have no choice as to how we feel in reaction to the event. Perhaps the mothers in this study are more sensitive than the fathers to criticism from others because they are more emotionally attached to the child. This higher level of emotional attachment could result in the irrational thinking that "because I have a lot invested in this child, I must react strongly to defend my abilities as a parent when those abilities are questioned."

In response to the item "I constantly worry that I will make a terrible mistake as a parent," 21% of mothers and 3% of fathers agree or strongly agree. This statement is part of the Worry factor of the PIBS and was developed to tap into Ellis' belief that it is irrational to preoccupy yourself and make yourself anxious about things that are strange or fearsome. Further exploration of this difference between mothers and fathers would be interesting. The tendency for mothers to worry more than fathers about the children is a belief that is accepted without questioning by most people. One explanation for the higher worry rate for mothers could again be their higher level of attachment than the fathers' to the child. Do men tend to worry more about the issues closer to their hearts, or is worrying more of a female phenomena?

LaRossa (1983) proposed that a 'singular overcommitment to motherhood' was the reason many mothers felt time pressures, with little time left for themselves or for their husbands. It could be hypothesized that this overcommitment is actually a tendency towards irrational ideation, especially in the mother-child relationship, although the finding of no difference between mothers and fathers on the PIBS does not support this notion. Perhaps the reason mothers were more stressed than fathers in this

study has to do with carrying a greater percentage of the workload associated with parenting.

Areas on the PIBS where mothers and fathers tended to hold similar rational beliefs were "If I am not a perfect parent, then I am a failure" and "I have faith in my own ability to deal with most problems that I may encounter as a parent." Over 90% of parents disagreed or strongly disagreed with the first statement and over 94% agreed or strongly agreed with the second statement. Ninety-three percent of mothers and 97% of fathers disagreed or strongly disagreed with the statement "When my child does something wrong I feel that I have failed as a parent." The correlation between mothers and fathers for the PIBS was -.01 which indicates that there was no significant relationship between the level of irrational beliefs held about parenting. High levels of irrational beliefs about parenting in one parent does not mean that the other parent also reports high (or low) levels of irrational beliefs.

The use of the PIBS to measure irrational beliefs about parenting has provided some interesting data for this study. It is especially interesting to find no significant differences between mothers' and fathers' levels of irrational beliefs about parenting. So, although the correlation between parenting stress and irrational beliefs about parenting was statistically significant for both mothers and fathers, the relationship does not seem to be gender specific. In other words, mothers were more stressed than fathers on several subscales of the PSI, but this difference did not seem to be related to a higher level of irrational beliefs.

Further research with a clinical population might provide more information on irrational beliefs about parenting as a correlate of parenting stress. Parents of children diagnosed with behavioral or affective disorders, or parents who are themselves diagnosed, may have a different pattern and level of irrational beliefs about parenting than a non clinical population such as the one in this study.

The scores for the mothers and fathers on the Dyadic Adjustment Scale were significantly lower than the level of marital adjustment reported in the normative population. This result was somewhat surprising given that the scores for the PSI and

PIBS were generally the same as the norms. Examination of the four subscales of the DAS showed that the parents' scores on three of the subscales (except fathers' mean score for dyadic satisfaction) were significantly lower than the norms. This sample of parents reported lower levels of dyadic consensus, affectional expression, and dyadic satisfaction (i.e., they are less satisfied with their marriage in these areas) than the norm. However, the parents in this sample reported a significantly higher level of dyadic cohesion than the normative population. The reason for the apparent contradiction in these results is unknown. Possibly the higher level of dyadic cohesion is linked to the parenting stress total scores. Maybe a higher level of dyadic cohesion between parents is a contributing factor in increasing the fathers' level of parenting stress. As was noted earlier in the discussion, the fathers' stress scores for this sample were higher than expected when compared to the normative population.

Also interesting is the result that on the Satisfaction subscale, the fathers' scores were higher than the mothers' indicating that the fathers reported better levels of marital satisfaction. These findings are in line with the literature reviewed. For example, Belsky et al., (1983, 1985, 1989) found that women typically report a lower level of marital satisfaction than men after becoming parents. As the present study did not use a pre-post test of marital adjustment it can not be assumed that a decline in satisfaction occurred. However, the lower scores for mothers in this study do support the research indicating that mothers are less satisfied with their marital relationship than fathers. This ties in with the earlier discussion concerning mothers' higher level of attachment to their child when compared to fathers. Since typically mothers spend more time with their children than fathers, it may be that they are simply too tired from parenting to invest time in their marital relationship which they then report as less satisfactory. As well, mothers' dissatisfaction with the amount of support they receive from their husbands with childcare may result in a less satisfactory view of their marriage, as noted by Ruble et al. (1988).

Results of the analyses of variance for one child vs. two child families were interesting. The findings of this research are similar to those of Ackerman (1991) and

Pittman et al. (1989), who also found no significant difference between the number of children and parenting stress/parenting difficulty. However, these findings are all somewhat surprising given that one would expect that if parenting is a stressful experience, having two children rather than just one would significantly increase the level of parenting stress. Possibly the adjustment from one child to two children is an added strain, but because it's a familiar experience it is fairly easy to adapt to for most parents. As parents of one child they have already adjusted to the lack of sleep, restriction of freedom, lack of privacy, and a 12 hour (at least) work day that are all part of being a parent. The addition of another child adds to the load but does not necessitate as large an adjustment as the transition from a couple to a triad.

The finding that mothers and fathers of two children are not more rational than parents of one child is also interesting. It might be expected that irrational beliefs about parenting may be linked somewhat to experience. The tendency to worry, catastrophize, and strive for perfection are all thought to be characteristics of first time parents as they cope with the uncertainty of the new experience. As well, with two children, parents would be expected to not have the time to worry about being a perfect parent, as the number of tasks to be completed is more of a priority than seeing that they are done perfectly. Hypothetically then, as parents move from a one child to a two child family, they should gain experience and confidence, which should translate to holding more rational ideas about parenting. The results of this study do not support this hypothesis.

Mothers of two children did not report a different level of marital adjustment than fathers of two children for the Consensus, Affection, and Satisfaction subscales of the DAS. For the Dyadic Cohesion subscale there were several significant differences. Fathers of two children had a significantly higher level of dyadic cohesion than mothers of two children, and mothers of one child had a significantly higher level of dyadic cohesion than mothers of two children.

The reason for fathers of two children having a better level of marital cohesion than mothers of two children is not clear. Maybe the fathers feel closer to their wives

when the family is a foursome because having a second child often necessitates a greater involvement on the part of the father with the child care and to the mother, who is generally in charge of child care.

Results of the analyses of variance for younger vs. older parents were inconsistent with the literature. For the parents in this study, there was no difference between levels of parenting stress, irrational beliefs, and parental age. However, in the review of literature it was found that parental age is a strong predictor of parenting stress. Both Umberson (1989) and Goldsteen and Ross (1989) found that older parents reported a significantly higher quality relationship with their child than younger parents. However, the age group of the younger parents in the two cited studies was 25 or less, whereas the age group of the younger parents in this study was 25-30. The more mature age of the 'younger' parents in this study may have contributed to not finding a significant difference between the 'younger' and 'older' parents. As well, the small sample size may be factor.

For both mothers and fathers the correlations between parenting stress, parent irrational beliefs, and dyadic adjustment were statistically significant. The highest correlations were between dyadic adjustment and parenting stress (-.48 for mothers, -.41 for fathers). This means that low levels of marital adjustment were correlated with high levels of parenting stress and vice versa. The correlation between parenting stress and parent irrational beliefs was also fairly high (.43 for mothers, .38 for fathers). In other words, for both mothers and fathers, high levels of parenting stress were correlated with high levels of parent irrational beliefs and vice versa. It was consistently found that parent characteristics were more highly related to irrational beliefs than child characteristics. Although this study found the correlation between irrational beliefs and parenting stress to be higher for mothers than fathers, Starko (1991) found the opposite (.37 for mothers, .63 for fathers). A significant correlation between irrational beliefs about parenting and dyadic adjustment was also found in this sample (-.26 for mothers, -.28 for fathers). This means that for both mothers and

fathers, high levels of irrational beliefs about parenting were linked to low levels of marital adjustment, and vice versa.

From this data, it appears that parent irrational beliefs are linked to parenting stress. However, it cannot be said that the relationship is causal, as correlation does not imply causality. An irrational parent may report higher levels of parenting stress, or, high levels of parenting stress may be linked to the development of irrational thought patterns, or some other factor(s) may affect both. For example, high levels of parenting stress might change the ways parents view events, which could in turn lead to the development of the rigid, dogmatic, style of thinking that characterizes Ellis' theory of irrational beliefs.

The same reasoning can be used for analysis of the relationship between parenting stress and marital adjustment. A better level of marital adjustment may help ameliorate parenting stress, or, lower levels of parenting stress might allow the time and energy necessary to have a happy marriage.

There was a significant correlation between mothers and fathers for parenting stress and for dyadic adjustment. The correlation for dyadic adjustment between mothers and fathers was .73 which is quite high, although expected. It would be unlikely that one partner in a marriage would report being very happy while the other partner reported being dissatisfied with the marriage.

It is interesting that there was no correlation for level of parent irrational beliefs between mothers and fathers in this study. However, Starko (1991) also found that there was almost a zero correlation between mothers and fathers for parent irrational beliefs, while a statistically insignificant correlation was reported between mothers' and fathers' level of parenting stress. In this study, level of parenting stress and marital adjustment were both significantly correlated between mothers and fathers, while irrational beliefs about parenting were not. The reason for the lack of correlation between mothers and fathers may be that irrational beliefs about parenting are a fairly stable construct that is not altered by association with a spouse who holds either more or less irrational beliefs about parenting than oneself. On the other hand, parenting

stress and dyadic adjustment may be more of a process than a state, and therefore high levels of stress or marital unhappiness in one spouse may influence the other, explaining the correlational pattern in this study.

Examination of the correlations between the PSI subscales and the PIBS and DAS showed slightly different patterns for mothers and fathers. Both mothers' and fathers' PIBS scores were more highly correlated with the PSI Parent Domain than the Child Domain, indicating that irrational beliefs are more linked to the stresses associated with feeling overwhelmed and inadequate to the task of parenting, than to the temperament of the child.

For the Child Domain, mothers' PIBS score correlated with Child Adaptability, Child Demandingness, and Child Distractibility. Child Distractibility shows a high correlation with parent irrational beliefs (.52). Mothers who rated their child as easily distracted, restless, and overactive, with difficulty listening to directions, also tended to hold more irrational beliefs about parenting. Causality cannot be implied and it may be that parenting a hyperactive or easily distracted child creates the climate for the development of irrational beliefs about parenting. Or, conversely, a mother who has a tendency toward irrational beliefs about parenting rates her child as unmanageable because he or she does not fit her perception of the ideal child. Bauer and Twentyman (1985) found that child abusing mothers were more annoyed across both social and nonsocial stressors, suggesting a generalized pattern of hyperresponsivity. Their data also showed that abusers attribute negative characteristics to their children even when there was little or no informational basis for their judgements. Other researchers have suggested that abusing parents set unrealistic expectations for their child which sets the stage for nonconformity by the child (Twentyman et al., 1984).

For the Child Domain, fathers' PIBS score also correlated with Child Adaptability and Child Distractibility; however, although mothers' data showed a significant correlation between Child Demandingness and the PIBS, fathers' data did not ($r=.16$). High scores on this subscale are produced when the parent experiences the child as placing many demands on him/her. The demands may come from diverse sources such

as crying, physically hanging on the parent, frequent requests for help, or a high frequency of minor problem behaviors. This source of stress appears magnified when the parent is overly committed to being the model parent (Abidin, 1986). As with the Child Distractibility subscale, mothers who hold irrational beliefs about parenting may rate their child as more demanding because the child does not fit the mothers' perception of the ideal child.

There was no significant correlation between the PIBS and the Child Acceptability, Child Reinforces Parent, and the Child Mood subscales of the PSI Child Domain for either mothers or fathers. Irrational beliefs about parenting were not correlated with parents' reports of their children as possessing unacceptable physical, intellectual, and emotional characteristics.

For the Parent Domain, mothers' PIBS score correlated with all the subscales except Physical Health. However, none of the subscales correlated as highly with the PIBS as did the PSI Parent Domain total score for mothers. The highest correlation for both mothers and fathers was between the Sense of Competence subscale and the PIBS (.40 for mothers, .42 for fathers). Depression was also highly correlated with the PIBS for both mothers and fathers (.39 for mothers, .40 for fathers).

The correlation between the Sense of Competence subscale and the PIBS could be interpreted in several ways. Abidin (1986) notes that parents who have a low sense of competence (a high score on the subscale), may be lacking in practical child development knowledge and may possess a limited range of child management skills. Or, a low sense of competence may be associated with criticism and lack of acceptance from the child's other parent (Abidin, 1986). Parents with a low sense of competence may have a tendency to irrational thinking about their role as a parent. Lacking the knowledge and skills necessary to handle their children, they may have rigid, unrealistic expectations of themselves as parents. It could also be hypothesized that parents who have a high level of irrational ideation about parenting see themselves as incompetent because they simply cannot measure up to the standards, however unrealistic they may be, that they have set for themselves.

The Depression subscale was the subscale that was the next most highly correlated with the PIBS for mothers and fathers. A high score on the Depression subscale is indicative of the presence of a significant depression in the parent. Parents who are depressed may develop dysfunctional cognitive patterns of thinking such as irrational beliefs, or, parents who have a tendency toward irrational thinking may become depressed as a result of trying to live with their unrealistic ideations.

The Parental Attachment and Parental Restriction subscales of the Parent Domain of the PSI were both significantly correlated with the PIBS for mothers and fathers. High scores on the Parental Attachment subscale are due to a lack of emotional closeness with the child or an inability (real or perceived) to accurately read and understand the child's feelings and/or needs. The positive correlation between this subscale and the PIBS may be interpreted as the possibility that parents are not close to their child because they are too busy with what should, ought, or must be according to their irrational beliefs about parenting. Thinking in irrational ways prevents them from parenting their child in a manner that allows them to develop a close emotional relationship with their child.

The Parental Restrictions subscale is a measure designed to tape into the parents rating of the experience of the parental role as restricting their freedom and frustrating them in their attempts to maintain their own identity. Parents with high scores in this category see themselves as being controlled and dominated by their children's demands and needs (Abidin, 1986). The correlation between this subscale and the PIBS may be indicative of a situation in which parents who feel restricted in the role of parenting develop irrational thinking about the way things should be. Or, as a result of irrational thinking, which is in itself restrictive, parents may rate their lives as restrictive. Believing that "Parents must be loved by their children" and "I must always be a loving parent in order to gain the approval of my child" may restrict parents from developing roles outside of parenting as they expend a great deal of energy and time trying to be loving and loved all of the time in their relationship with their children.

Differences between mothers' and fathers' patterns of correlation for the PSI Parent Domain and the PIBS occurred for the Social Isolation, Relationship with Spouse, and Physical Health subscales. A significant correlation between the Social Isolation subscale and the Relationship with spouse subscale and the PIBS was found for mothers, but not for fathers.

Abidin (1986) notes that parents scoring high on the Social Isolation subscale are under considerable stress and it is necessary to establish an intervention program as soon as possible. They are socially isolated from their peers, relatives, and other emotional support systems. In many instances their relationships with their spouses are distant and lacking in support for their efforts as parents. High scores on the Relationship with Spouse subscale are indicative of parents who are lacking the emotional and active support of the other parent in the area of child management. For the mothers in this sample it may be that being socially isolated and lacking the support of their husbands leads to the development of irrational thinking in relation to their role as a parent. Or, irrational beliefs about parenting may act as a barrier between mothers and a potential source of support. Friends and relatives (including her husband) may tire of the mother's rigid, unrealistic view of her role as a parent, and avoid her, leading to feelings of isolation for the mother.

The fathers in this sample reported a significantly positive correlation between the PIBS and the Physical Health subscale of the PSI, while the mothers did not. Fathers who rated their physical health as having declined since having children also reported higher levels of irrational beliefs about parenting. They may develop dysfunctional thinking as a result of a loss of sleep and an increase in frequency of illness, or, fathers who think in irrational ways about parenting may have unrealistic perceptions of their own health status.

In summary, both the Child Domain and the Parent Domain scores, as well as the PSI total score, were significantly correlated with the PIBS for the mothers and fathers in this sample. Three of the six subscales of the Child Domain for mothers, and two of six for fathers, were significantly correlated with the PIBS. Child Distractibility

showed the highest correlation with the PIBS for mothers (.52), while for fathers the Child Adaptability subscale has the highest correlation with the PIBS (.35). Child Acceptability, Child Mood, and Child Reinforces Parent were not significantly correlated with the PIBS for either mothers or fathers. For the Parent Domain, six of seven subscales were significantly correlated with the PIBS for mothers. Only the Physical Health subscale showed a nonsignificant correlation with the PIBS. For fathers, five of seven of the subscales were significantly correlated with the PIBS. Social Isolation and Relationship with Spouse had a nonsignificant correlation with the PIBS. For both mothers and fathers, the subscale with the highest correlation was the Sense of Competence subscale (.40 for mothers, .42 for fathers).

Examination of the correlations between the PSI Total scores and the DAS Total scores and the subscales of the DAS showed similar patterns for mothers and fathers. For both parents, the DAS total score and the subscales of Dyadic Consensus, Dyadic Satisfaction, and Affectional Expression, were significantly correlated with the PSI Total score. The only difference between mothers and fathers was on the correlation between the Dyadic Cohesion subscale and the PSI Total score. Mothers in this sample showed a significant correlation between dyadic cohesion and parenting stress. Low levels of dyadic cohesion are linked to high levels of parenting stress, and vice versa. For mothers, the highest correlation was between parenting stress and the DAS Total score (-.48). Fathers' data showed the highest correlation to be between parenting stress and dyadic consensus (-.45).

There were significant correlations between the PIBS and the DAS for both mothers and fathers in this study. For both parents, a high level of irrational beliefs about parenting was linked to low levels of dyadic adjustment, and vice versa. Since it is not possible to determine causality, the reason for the relationship can only be speculated. Mothers and fathers who tend to hold irrational beliefs about parenting may also report lower levels of marital adjustment. They may have as unrealistic expectations of marriage as they do about how stressful parenting should be. Possibly,

parents who hold irrational beliefs in one domain (parenting), also hold irrational beliefs about other areas of their lives such as their relationships with their spouses.

Three separate step-wise regression equations were constructed for both mothers and fathers to predict parenting stress from irrational beliefs about parenting, marital adjustment, and parental age. The finding that dyadic adjustment was the best predictor of parenting stress for both mothers and fathers was not unexpected. From the literature reviewed it is apparent that the spousal relationship plays an important role in understanding parenting stress. As Belsky (1984) states, "the marital relationship is the first-order support system, with inherent potential for exerting the most positive or negative effect on parental functioning" (p. 90). In support of this, Webster- Stratton (1989) conducted a study in which the results showed a significant correlation between high scores on the PSI Parent Domain and low marital satisfaction for mothers.

However, in this study, the decision to use parenting stress as the outcome variable was a theoretical choice and does not imply cause and effect. Low marital adjustment does not necessarily cause high levels of parenting stress. If the equation were set up in the reverse, with marital adjustment as the outcome variable, then parenting stress would be equally predictive of marital adjustment.

The relationship between marital adjustment and parenting stress (as an outcome variable) was hypothesized by Younger (1984) to operate in several ways. High levels of spousal support may decrease parenting stress by helping to modify the individual's perception of the event(s). Being able to communicate the emotional issues of parenting with a partner who understands the nature of the stresses may help parents to perceive the problem in a less disturbing light, or from a different angle. Hopefully, this will help them to feel less alone in their struggles. Women have often been characterized as benefitting more from emotional support than men, and this seemed to be reflected in the better predictive ability of marital adjustment for the mothers' equation than the fathers' in this study.

Given that marital adjustment is useful for predicting parenting stress for both mothers and fathers, it seems warranted to suggest that it may be a useful intervention

point for families experiencing high levels of parenting stress. Marital or conjoint therapy to improve the levels of dyadic cohesion, consensus, affectional expression, and satisfaction may help to lower levels of parenting stress. Strengthening the marital relationship may be as simple as spending more time together as a couple, rather than as parents. In fact, almost 60% of the parents in this study report that they go out as a couple (without the children) less than one time per month. Twenty four percent of the couples go out one time per month. This is probably a drastic shift from the couples' pre-parenting days in the amount of time spent alone together. The finding that the parents in this sample have a lower level of marital adjustment than a normative population may be due to the lack of time together as a couple.

The role of irrational beliefs in predicting parenting stress, although of a lesser value than dyadic adjustment, is still important. Irrational beliefs about parenting are considered to be a cognitive construct (with some affective influence). Therefore, parents who exhibit high levels of parenting stress may be helped by a cognitive therapy such as Rational-Emotive Therapy. RET is designed to disprove irrational patterns of thinking and replace them with more flexible, realistic thoughts. As a result of learning to think more rationally, parents may have lower levels of parenting stress, which is important to the development of a healthy parent-child relationship.

The following, and final, chapter includes a brief summary of the major findings of the study, conclusions, delimitations and implications for future research.

Chapter VI Summary, Conclusions, And Implications For Future Research

Summary and Conclusions

The purpose of this study was to examine the relationship between parenting stress, irrational beliefs about parenting, and dyadic adjustment, in couples who are parents of a child under the age of three. The Parenting Stress Index (PSI), Parent Irrational Belief Scale (PIBS), and the Dyadic Adjustment Scale (DAS), were administered to 62 married couples whose child was enrolled in daycare or nursery school.

The results of the study were as follows:

1. The overall level of parenting stress and irrational beliefs about parenting reported by the parents in this study was average when compared to available normative data. The level of dyadic adjustment for both the mothers and fathers in this study was significantly lower than the level reported by the average couple. Although this sample showed a statistically significant difference for their scores on dyadic adjustment, closer examination of the data did not warrant describing the difference as clinically significant. Fathers in this study were significantly more stressed when compared to the normative sample of fathers for the PSI. The lack of 'typicality' of this sample of fathers is small but significant, and may limit generalizability of the results.

2. There was no significant difference between mothers and fathers in this study for levels of overall parenting stress, irrational beliefs about parenting, or dyadic adjustment. However, the mothers in this study were significantly more depressed, and reported a higher level of attachment to their child, a lower level of satisfaction in their relationship with their spouse, and poorer physical health (since having a child), than fathers.

3. There was no statistical difference in level of parenting stress, irrational beliefs about parenting, or overall level of dyadic adjustment for parents of one child vs. parents of two children, or for younger vs. older parents.

4. There was a significant correlation between parenting stress and irrational beliefs about parenting for both mothers (.43) and fathers (.38). There was a significant correlation between parenting stress and dyadic adjustment for mothers (-.48), and fathers (-.41). There was a significant correlation between irrational beliefs about parenting and dyadic adjustment for mothers (-.26), and fathers (-.28).

5. There was a significant correlation between mothers and fathers for parenting stress (.27), and dyadic adjustment (.73), but not for irrational beliefs about parenting (.02).

6. Dyadic Adjustment was the best predictor of parenting stress for mothers (r2=.26) and fathers (r2=.15), followed by irrational beliefs about parenting (r2=.34 for mothers, and .24 for fathers). The addition of maternal age to the regression equation for mothers increased the total explained variance to 39%.

From these results, it may be concluded that although irrational beliefs about parenting and dyadic adjustment were both significant variables to be considered when studying the correlates of parenting stress, the relationship of these variables to parenting stress was not gender specific. The results of this study did not support the myth of the irrational, stressed out mother. Although the mothers in this study reported higher levels of parenting stress than the fathers, they did not have higher levels of irrational beliefs about parenting when compared to the fathers.

The significant correlations between parenting stress, irrational beliefs about parenting, and dyadic adjustment, are important from an intervention point of view. Strengthening the parent/child bond by alleviating some of the stresses associated with parenting may be possible through a therapeutic intervention involving either marital therapy or cognitive therapy, or both.

Delimitations of the Study and Implications for Future Research

1. The cohort of parents involved with this study was a non- clinical sample. Future research could be conducted on a sample of parents of children with behavioral or affective disorders, or who themselves have been diagnosed. One example might be abusing vs. non-abusing parents. The results of research on a clinical sample may be different than the results obtained in this study.

2. The age range of the children for this sample of parents was small (under the age of three). Future research including an older sample of children might provide more information about the relationship between parenting stress, irrational beliefs about parenting, and dyadic adjustment.

3. Irrational beliefs, as conceptualized by Ellis (1962), was chosen as a potential correlate of parenting stress. It is possible that there are other ways of thinking about irrational beliefs related to parenting that would lead to different results than those obtained by this study. The development of a measuring instrument based on other cognitive theorists' views of dysfunctional thinking would provide interesting data in this area.

4. The age range of parents involved in this study was small, with none of the parents under the age of 25. It would be worthwhile to be able to compare a cohort of young parents (age 18-25) to an older, more mature group.

5. Further research using a qualitative method, in part or in whole, may provide more information on the relationship among the variables in this study.

6. The lack of 'typicality' of this sample of fathers, given their higher than average levels of parenting stress and lower than average levels of dyadic adjustment, is small but significant, and may limit the generalizability of the results. Further research with fathers and mothers will hopefully provide information as to whether this sample of fathers is atypical or not.

7. Future research with an intervention design may provide information on whether marital therapy, or cognitive therapy, can reduce irrational beliefs about parenting, increase dyadic adjustment, and/or reduce levels of parenting stress.

Parenting stress in young families, and the associated variables, will hopefully continue to grow as a research area. Particularly, as fathers continue the trend of being more involved in parenting than their fathers were, researchers will be interested in looking at this phenomena. Further understanding of this important stage of the family life cycle will be helpful to both families and clinicians alike.

Bibliography

Abidin, R. R. (1986). Parenting stress and the utilization of pediatric services. Children's Health Care, 2, 70-73.

Abidin, R. R. (1986). Parenting stress index - manual (2nd ed.). Virginia: Pediatric Psychology Press.

Abidin, R. R., & Wilfong, E. (1989). Parenting stress and its relationship to child health care. Children's Health Care, 18, 114-116.

Ackerman, K. (1991). Irrational beliefs, parenting self- efficacy, and parenting stress. Unpublished doctoral dissertation, University of Alberta, Edmonton.

Alpert, J. L., Richardson, M. S., & Fodaski, L. (1983). Onset of parenting and stressful events. Journal of Primary Prevention, 3, 149-159.

Bauer, W. D., & Twentyman, C. T. (1985). Abusing, neglectful, and comparison mother's responses to child-related and non-child-related stressors. Journal of Consulting and Clinical Psychology, 53, 335-343.

Belsky, J. (1984). The determinants of parenting: A process model. Child Development, 55, 83-96.

Belsky, J., & Isabella, R. A. (1985). Marital and parent-child relationships in family of origin and marital change following the birth of a baby: A retrospective analysis. Child Development, 56, 342-349.

Belsky, J., Lang, M., & Huston, T. L. (1986). Sex-typing and division of labor as determinants of marital change across the transition to parenthood. Journal of Personality and Social Psychology, 50, 517-522.

Belsky, J., Spanier, G. B., & Rovine, M. (1983). Stability and change across the transition to parenthood. Journal of Marriage and the Family, 45, 567-577.

Belsky, J., & Rovine, M. (1990). Patterns of marital change across the transition to parenthood: Pregnancy to three years postpartum. Journal of Marriage and the Family, 52, 5-19.

Cobb, S. (1979). Social support as a moderator of life stress. Journal of Psychosomatic Medicine, 38, 300-314.

Cowan, C. PO., & Cowan, P. A. (1988). Who does what when partners become parents: Implications for men, women, and marriage. Marriage and Family Review, 1, 105-131.

Cowan, C. P., Cowan, P. A., Heming, G., Garrett, E., Coysh, W. S., Curtis-Boles, H., & Boles III, A. J. (1985). Transitions to parenthood his, hers, and theirs. Journal of Family Issues, 6, 451-481.

Crnic, K. A., & Booth, C. L. (1991). Mothers' and fathers' perceptions of daily hassles of parenting across early childhood. Journal of Marriage and the Family, 53, 1042-1050.

Deffenbacher, J. L., Zwemer, W. A., Whisman, M. A., Hill, R. A., & Sloan, R. D. (1986). Irrational beliefs and anxiety. Cognitive Therapy and Research, 10, 281-291.

Ellis, A. (1962). Reason and emotion in psychotherapy. New York: Lyle Stuart.

Ellis, A. (1987). The impossibility of achieving consistently good mental health. American Psychologist, 42(4), 364-375.

Ellis, A., & Russle, G. (1977). Handbook of rational emotive therapy. New York: Springer Publications.

Gage, M. G., & Christensen, D. H. (1991). Parental role socialization and the transition to parenthood. Family Relations, 40, 332-337.

Goldsteen, K., & Ross, C. E. (1989). The perceived burden of children. Journal of Family Issues, 10(4), 504-526.

Friedrich, W. N. (1979). Predictors of coping behavior of mothers of handicapped children. Journal of Consulting and Clinical Psychology, 47, 1140-1141.

Harriman, L. C. (1983). Personal and marital changes accompanying parenthood. Family Relations, 32, 387-394.

Hill, R. (1949). Families under stress. Westport, Connecticut: Greenwood Press.

Hobbs, D. F. Jr., & Cole, S. P. (1976). Transition to parenthood: A decade replication. Journal of Marriage and the Family, 38, 723-731.

Kotler, T. (1985). A balanced distance: Aspects of marital quality. Human Relations, 38, 391-407.

LaFiosca, T., & Loyd, B. H. (1986). Defensiveness and the assessment of parental stress and anxiety. Journal of Clinical Psychology, 15, 254-259.

Lane, A. R., Wilcoxin, S. A., & Cecil, J. H. (1988). Family-of-origin experiences and the transition to parenthood: Considerations for marital and family therapists. Family Therapy, 15, 23-29.

Langford, S. (1988). A relational analysis of mother-related variables, use of parent services, and demographic factors. Unpublished master's thesis, University of Alberta, Edmonton.

LaRossa, R. (1983). The transition to parenthood and the social reality of time. Journal of Marriage and the Family, 45, 579- 589.

Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. New York: Springer.

LeMasters, E. E. (1957). Parenthood as crisis. Marriage and Family Living, 19, 352-355.

McCubbin, H. I., & Thompson, A. I. (1987). Family assessment inventories for research and practice. Madison: University of Wisconsin.

Mouton, P. Y., & Tuma, J. M. (1988). Stress, locus of control, and role satisfaction in clinic and control mothers. Journal of Clinical Child Psychology, 17, 217-224.

Nihira, K., Meyers, C. E., & Mink, I. T. (1980). Home environment, family adjustment, and the development of mentally retarded children. Applied Research in Mental Retardation, 1, 5-24.

Pittman, J. F., Wright, C. A., & Lloyd, S. A. (1989). Predicting parenting difficulty. Journal of Family Issues, 10(2), 267-286.

Reddon, J. (1989). Stress/coping/resources: Impact on family. Unpublished doctor dissertation, University of Alberta, Edmonton.

Ruble, D. N., Fleming, A. S., Hackel, L. S., & Stangor, C. (1988). Changes in the marital relationship during the transition to first time motherhood: Effects of violated expectations concerning division of household labor. Journal of Personality and Social Psychology, 5, 78-87.

Russell, C. S. (1974). Transition to parenthood: Problems and gratifications. Journal of Marriage and the Family, 36, 294-301.

Scott, J., & Alwin, D. F. (1989). Gender differences in parental strain-parental role or gender role?. Journal of Family Issues, 10(4), 482-503.

Smith, T. W. (1982). Irrational beliefs in the cause and treatment of emotional distress: A critical review of the rational-emotive model. Clinical Psychology Review, 2, 505-522.

Smith, T. W., & Zurawski, R. M. (1983). Assessment of irrational beliefs: The question of discriminant validity. Journal of Clinical Psychology, 39, 976-979.

Smith, T. W., Boaz, T. L., & Denney, D. R. (1984). Endorsement of irrational beliefs as a moderator of the effects of stressful life events. Cognitive Therapy and Research, 8, 363-370.

Smith, T. W., Houston, B. K., & Zurawski, R. M. (1984). Irrational beliefs and the arousal of emotional distress. Journal of Counseling Psychology, 31, 190-201.

Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. Journal of Marriage and the Family, 38, 15-28.

Starko, T. J. (1991). Parent stress and parent irrational beliefs: mother-father differences. Unpublished master's thesis, University of Alberta, Edmonton.

Stemp, P. S., Turner, R. J., & Noh, S. (1986). Psychological distress in the postpartum period: The significance of social support. Journal of Marriage and the Family, 48, 271-277.

Tomlinson, P. S. (1987). Spousal differences in marital satisfaction during transition to parenthood. Nursing Research, 36, 239-243.

Umberson, D. (1989). Relationships with children: explaining parents' psychological well-being. Journal of Marriage and the Family, 51, 999-1012.

Ventura, J. N. (1987). The stresses of parenthood reexamined. Family Relations, 36, 26-29.

Vestre, N. D., & Burnis, J. J. (1987). Irrational beliefs and the impact of stressful life events. Journal of Rational-Emotive Therapy, 5, 183-188.

Walker, A. J. (1985). Reconceptualizing family stress. Journal of Marriage and the Family, 827-837.

Wallace, P. M., & Gotlib, I. H. (1990). Marital adjustment during the transition to parenthood: Stability and predictors of change. Journal of Marriage and the Family, 52, 21-29.

Webster-Stratton, C. (1989). The relationship of marital support, conflict, and divorce to parent perceptions, behaviors, and child-conduct problems. Journal of Marriage and the Family, 51, 417-430.

Webster-Stratton, C., & Hammond, M. (1988). Maternal depression and its relationship to life stress, perceptions of child behavior problems, parenting behaviors, and child conduct problems. Journal of Abnormal Child Psychology, 16, 299-315.

Weinberg, S. L., & Richardson, M. S. (1981). Dimensions of stress in early parenting. Journal of Consulting and Clinical Psychology, 49, 686-693.

Wright, P. J., Henggeler, S. W., & Craig, L. (1986). Problems in paradise?: A longitudinal examination of the transition to parenthood. Journal of Applied Developmental Psychology, 7, 277-291.

Younger, J. B. (1984). Determinants of stress in mothers of young infants (Doctoral dissertation, University of Virginia, 1984). Dissertation Abstracts International, 45, 3592.

Appendix A

Parent Stress Study

Dear Parent;

Thank-you for considering participation in our research study which deals with the stress experienced by parents of young children. The study involves having mothers and fathers with children under the age of three each fill out a questionnaire about their levels of stress, marital satisfaction, and some of their beliefs related to parenting.

Participation in the study is strictly **voluntary**. We would appreciate your cooperation in filling in the accompanying questionnaires. One questionnaire is for the mother and one is for the father, and we would appreciate it if you filled them out separately without consulting each other. If only one of you fill out the questionnaire, please return both the completed and uncompleted questionnaire in the envelope provided. The questionnaire should take you approximately 45 minutes to complete and can be completed at home and returned to Dr. Calder by mail. All postage is prepaid. Simply put the questionnaires in the accompanying envelope and drop it in the mail or return the completed questionnaire to your daycare or nursery school. Please return the questionnaires as soon as possible.

Please answer all questions and give your first response. Part 2 of the questionnaire is to be answered with reference to one child only under the age of three. If you have more than one child under the age of three, choose the child who causes you the most concern. This is a survey of attitudes and there are no right or wrong answers. There is no need to put your name anywhere on the questionnaire and all responses will be kept confidential. The data from the study will form the basis of my Ph.D. research and will contribute to the completion of my Doctorate in Educational Psychology.

The questions asked in the questionnaire should not create emotional distress for the participants. However, if you feel that you need help in dealing with your level of parental stress, or you have questions concerning the study or the questionnaire, please feel free to contact myself daytime, at 492-5245, or Dr. Calder daytime, at 492-3696. You may also request a copy of the final results of the study by calling either of those numbers. We thank you for your help in assisting us with this project.

Yours truly,

Connie McDonald, M.A.
Department of Educational Psychology
University of Alberta

Dr. Peter Calder
Supervising Professor
Department of Educational Psychology
University of Alberta

Appendix B

February 04, 1991

Dear Parent,

If you have received a copy of the "Parent Stress Study" questionnaire from your daycare or nursery school, I would really appreciate it if you and your spouse could answer and return the questionnaire as soon as possible.

I would like to have them back by the middle of February at the latest as I begin maternity leave in March.

Thank-you very much for your help with this project.

Connie Mcdonald, M.A.
Department of Educational Psychology
University of Alberta